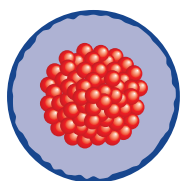




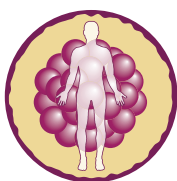
# The benchmark in protein purity



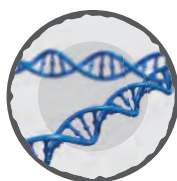
*Premium supplier of autoantigens,  
neutrophil markers, antibodies and reagents*



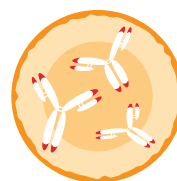
Native Animal  
Antigens



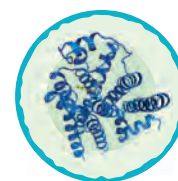
Native Human  
Antigens



Recombinant  
Antigens



Antibodies



Reagents  
& Services







Photo: Rob Suisted - Wellington, New Zealand

## WHO WE ARE

AROTEC Diagnostics has been producing and supplying premium reagents to the diagnostics industry since 1996. Today, we are continuing this tradition as the benchmark supplier by expanding into new disease areas, including critical components for diagnostics research, development and manufacturing partners.

Since AROTEC's inception we have undertaken a concerted effort to produce both established and novel autoantigen reagents for the autoimmune diagnostics market. Stringent quality management procedures with a key emphasis on process control and continual improvement has enabled us to offer consistent and reliable products to our global customers, confirming AROTEC as a trusted supplier for leading diagnostic companies.

We are now working to actively grow our portfolio through the development of new antigens from native and recombinant sources. With the addition of antibodies and reagents, AROTEC will offer a comprehensive autoimmune diagnostic panel. Significant investments in our facility and technologies have helped to expand our research and development capabilities as we look to move into other disease state areas.

Our future goals are to deliver the same quality products you have come to expect from AROTEC across these disease states areas, as well as providing key reagents for your diagnostics research and manufacturing needs.

## WHAT WE DO

AROTEC is a practical, hands-on scientific company with over 75% of our staff coming from a biochemistry or biotechnology background. We are experts in protein purification, which has allowed us to master complex purification processes and produce premium diagnostic reagents from analytical to bulk scale. Carrying out continuous in-process testing using an array of analytical proteomic techniques, we maintain stringent process control resulting in minimal lot-to-lot variability and a final product that conforms to our product specifications batch after batch.

We believe there is no compromising when it comes to quality. To purify quality reagents it is necessary to start with quality raw materials; autoantigens purified from animal tissue are from animals of exclusively New Zealand origin, the premium source material. Human blood fractions are obtained from certified New Zealand blood centres with complete donor traceability and serology. All recombinant antigens are manufactured in-house under strict quality controls. Our commitment to quality is no more evident than in our extensive range of purified autoantigen reagents.

## WHAT WE OFFER

At our current location we are within easy reach of Wellington International Airport. This means our products can reach a number of important international hubs from our facility within 24 hours (Sydney, Los Angeles, Singapore). All of our products are shipped on dry-ice ensuring their integrity throughout transit.

We operate distribution centres in the US and Germany with weekly deliveries scheduled to all of our customers in Europe and the US. Our technical sales managers are on hand to provide all the support you require for your production and R&D needs. Outside the US and Europe we have a strong network of well-established distributors who can support your business. Please visit our website for AROTEC Distributor contact information.

Our pilot sample testing and reservation policy offers you long term security of lot availability and minimizes the need

for regular validation within your production environment. We are delighted to supply product performance and application data to our customers. Our responsive team will ensure we deal with any queries in regards to our products in a timely and efficient manner.

At AROTEC we can also offer customised products such as different buffer conditions, concentrations or specifications depending on your workflow. We are open to developing novel antigens or antibodies as well as offering premium reagents specific to your IVD or research needs.

Feel free to contact us with your project requests.

**AROTEC Diagnostics understands that security of supply and consistent quality of key components are vital to your business. We are committed to meeting these needs.**





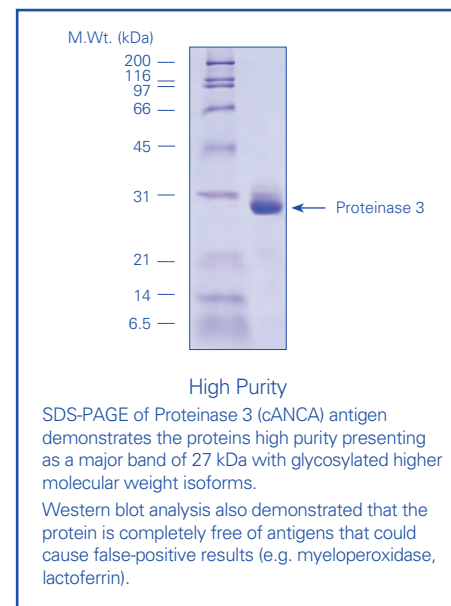
## OUR PRODUCT STANDARDS

At AROTEC we believe that there is no compromising when it comes to quality. To purify quality protein reagents it is necessary to start with quality raw materials;

1. Animal sourced antigens are certified as exclusively of NZ origin, considered globally as the premium sourced material.
2. Human sourced antigens are obtained from regulated donor centres within New Zealand.
3. Recombinant products are produced entirely at our facility under stringent quality controls from fermentation through to final purification.

### PURITY

AROTEC autoantigens are highly pure (minimum specification >90% pure but often approaching >99% pure). We achieve this through meticulous "polishing" of the final product using high-resolution chromatographic techniques. This results in the virtual absence of contaminating substances thereby ensuring that assays developed using our reagents have very low background.

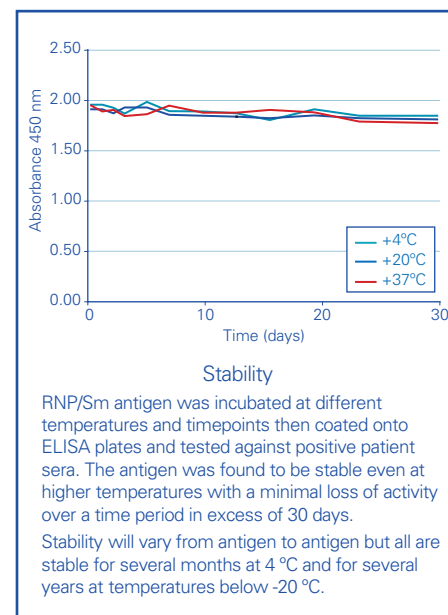


### BULK VOLUME

We can produce autoantigen lots from analytical (a few milligrams) to bulk (approaching grams) amounts. Large lot sizes eliminate the need for customers to continuously qualify new lots during production. Product lots can be reserved for established customers and held under storage in our facility in New Zealand or at our distribution centres.

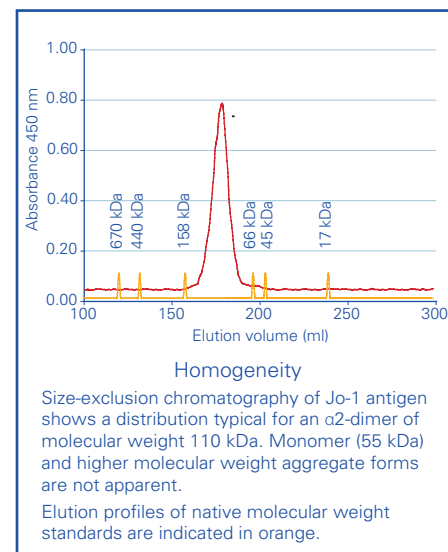
### STABILITY

AROTEC autoantigens exhibit outstanding stability and show no significant loss of activity over several years when stored appropriately.



### HOMOGENEITY

Homogenous autoantigen aggregation states are essential for many immunoassay applications. Native source materials ensure that authentic multimeric and quaternary structures are maintained and inappropriate protein aggregation is avoided.



### AUTHENTIC STRUCTURE

Use of native source materials wherever possible ensures correct post-translational processing, tertiary and quaternary structure (essential for detection of conformation-dependent autoantibodies). Autoantigens purified from human neutrophils are the ultimate in authentic autoantibody targets; autoantigens prepared from animal source materials not only have authentic structure, they also have an extremely high degree of primary sequence homology to their human counterparts.

Sm D1 autoantigen			
HUMAN	MKLVRFLMKLSHETVTIELKNGTQVHGTTIGVDVSMVTHL		040
BOVINE	MKLVRFLMKLSHETVTIELKNGTQVHGTTIGVDVSMVTHL		040
HUMAN	KAVKMTLKNREPVOLETLSIRGNIRYFILPDSLPLDTLL		080
BOVINE	KAVKMTLKNREPVOLETLSIRGNIRYFILPDSLPLDTLL		080
HUMAN	VDVEPKVSKKREAVAGRGGRGRGRGRGRGRGRGRGR		119
BOVINE	VDVEPKVSKKREAVAGRGGRGRGRGRGRGRGRGRGR		119

■ Amino acid identity maintained (no substitution)  
■ Amino acid identity not maintained

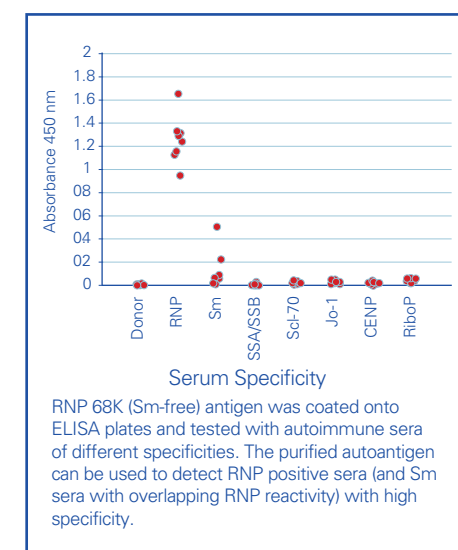
**Primary Sequence Homology**  
Primary amino acid sequences for Sm D1 antigen from human and bovine are aligned. Amino acids that are identical between species are highlighted in blue, showing that the identical sequence is retained over the entire 119 amino acids.  
Sequence homology has been shown for all the other AROTEC ENA antigens prepared from bovine thymus to be either identical or highly homologous to human sequences.

### PATENT IMMUNITY

Investigators planning to use recombinant autoantigens in a commercial situation will need to consider that many stages of recombinant protein production and application are subject to patent protection. Native autoantigens are prepared using proprietary technology that does not expose the end user to patent issues.

### SPECIFICITY

High purity ensures high specificity. Active immunoadsorption procedures to remove potentially interfering components where necessary, followed by rigorous quality control, ensures that AROTEC autoantigens are free of other proteins that might lead to false positive results.

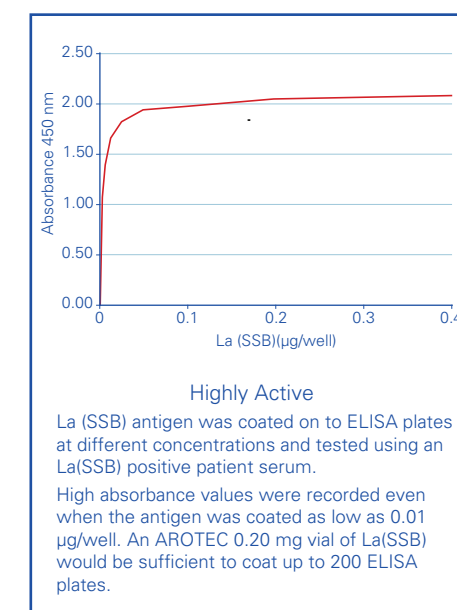


### AVAILABILITY

Except under exceptional circumstances we maintain high inventory levels of our complete product range thereby ensuring prompt delivery. Pilot samples from multiple lots can be supplied to established customers, for evaluation and qualification.

### ACTIVITY

AROTEC autoantigens are highly active and can be used to detect autoantibodies in ELISA even when coated at low concentrations (typically 10-100 ng/well is sufficient). Linear and conformation-dependent autoantibody epitopes are detected with high sensitivity.

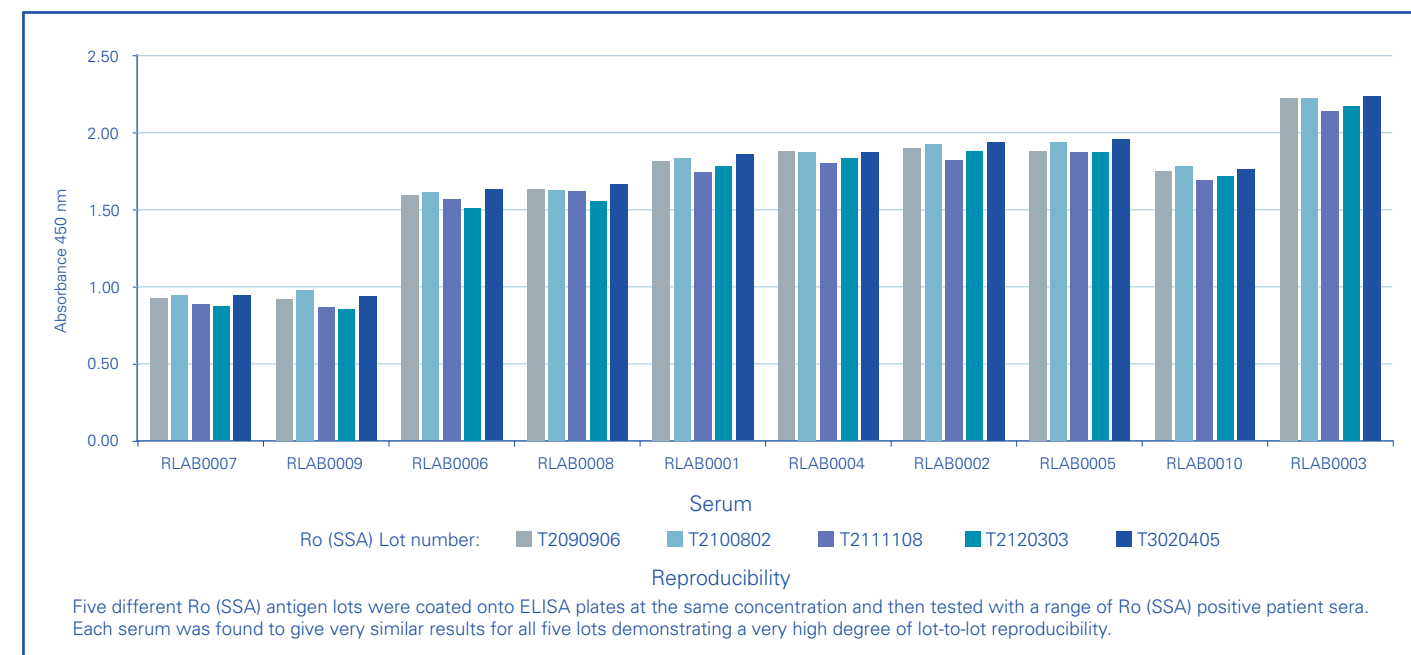
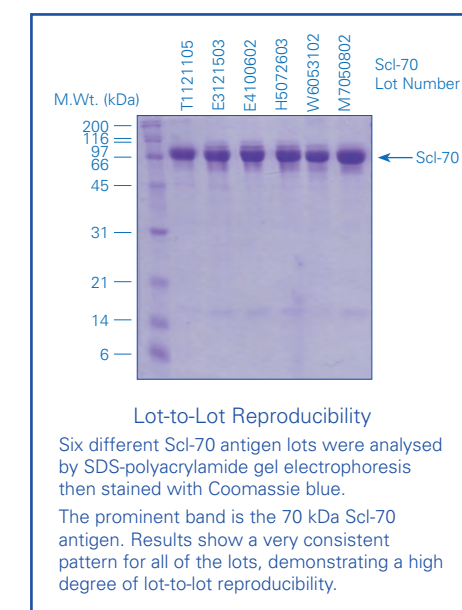


### VALUE

Excellent quality doesn't mean that a product is unaffordable! AROTEC will make every effort to supply to you at competitive prices. We can offer package pricing or bundle deals.

### REPRODUCIBILITY

Lot-to-Lot consistency is our strength. Strictly qualified native raw materials provide a completely reproducible source material. Validated, mature production processes that are subject to continuous in-process quality control yield consistently high end-product purity. New lots are rigorously tested and compared to internal gold-standard lots to ensure they conform to specifications.

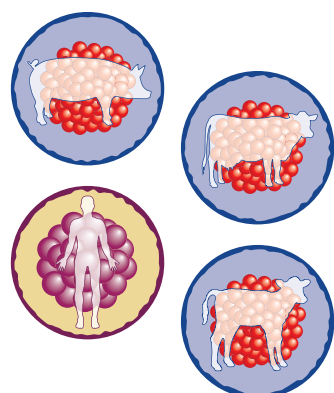




## OUR FACILITY

AROTEC operates out of a brand new purpose built facility located in Lower Hutt, Wellington, New Zealand. Our laboratories are spacious, modern and entirely dedicated to the production of diagnostic reagents. Operations within our facility are incorporated into a formal quality management system registered to ISO9001:2008 standards. We offer complete traceability from raw material to end product which undergoes regular independent auditing.

All critical temperature controlled areas are monitored 24/7 and logged ensuring all product is maintained at optimal temperatures during manufacturing and storage.



Our production facility has an impressive array of protein purification equipment maintained and managed through an extensive calibration and preventative maintenance program, ensuring a robust production environment. This allows us to achieve large-scale outputs of key products on a consistent basis.

## EXPERTISE

We are purification experts with a team of scientists possessing advanced protein purification skills allowing us to master complex purification processes from analytical to bulk scales at an extremely high level of purity.

Utilising an array of protein analytical techniques we carry out continuous in-process analysis during our purification process to ensure maximum control and final product specifications are delivered upon.

With an extensive range of immunological and molecular biological techniques at our disposal we are ready to tackle the most ambitious projects.

## PRODUCTS OF NEW ZEALAND ORIGIN

Internationally, New Zealand has been recognised as the world's premier source of animal sera and animal protein products by the biotechnology industry. This is in part due to New Zealand's geographical and biological isolation along with strict border security and agricultural restrictions.

Access to export markets has been core to ensuring customers globally have chosen our company as their primary source of proteins. With New Zealand's disease free status, our products comply with most countries importation requirements providing this ease of access.

The Ministry for Primary Industries (MPI) is the regulatory authority governing New Zealand's stringent regulations and they are responsible for actively monitoring animal pest and diseases status. MPI provides trusted assurances to importing countries that our products meet their requirements.

New Zealand is classified as being free from List A of animal diseases by the office International des Epizooties (OIE) as well as being recognised by the USDA-APHIS for the non-existence of Bovine Spongiform Encephalopathy (BSE), foot-and-mouth disease, scrapie and numerous other significant animal diseases.

All material for production of human derived native antigens are sourced from reputable donor centres offering full serological testing and traceability back to individual donors.

ISO  
certified  
to the  
9001:2008  
standard



Quality  
ISO 9001

AROTEC Diagnostics; reproducibly pure products offering you a consistent and reliable partner.

Extraction

Purification

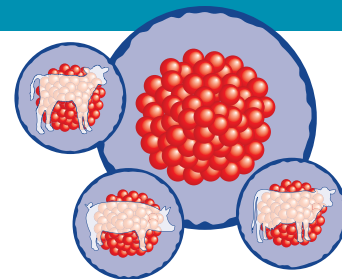
Polishing

Quality  
Control

Frozen  
Storage

Supply





## NATIVE ANTIGENS - ANIMAL DERIVED

### GBM

Goodpasture antigen,  
Collagen type IV NC1 domain

**Source:** Bovine Kidney

**Uniprot ID:** Q28084

#### ORDERING INFORMATION

ATG02-02 0.20mg

ATG02-10 1.0mg

### Jo-1

Histidyl tRNA synthetase, HisRS,  
Histidine tRNA ligase

**Source:** Calf Thymus

**Uniprot ID:** Q2K184

#### ORDERING INFORMATION

ATJ01-02 0.20mg

ATJ01-10 1.0mg

### Mitochondrial

Pyruvate dehydrogenase complex

**Source:** Bovine Heart Muscle

**Uniprot ID:** P11180 P22439 P11966 Q9N1X8

#### ORDERING INFORMATION

ATM02-02 0.20mg

ATM02-10 1.0mg

### Parietal cell antigen (H/K-ATPase)

H/K-ATPase

**Source:** Porcine Gastric Mucosa

**Uniprot ID:** P19156 P18434

#### ORDERING INFORMATION

ATP01-02 0.20mg

ATP01-10 1.0mg

### RNP-A (Sm-free)

U1 snRNP A subunit

**Source:** Calf Thymus

**Uniprot ID:** Q2KIR1

#### ORDERING INFORMATION

ATR06-02 0.20mg

ATR06-10 1.0mg

### Histone (H1-Enriched)

Histone H1,H2A,H2B,H3 and H4

**Source:** Calf Thymus

**Uniprot ID:** please see website

#### ORDERING INFORMATION

AHB01-02 0.20mg

AHB01-10 1.0mg

### La(SSB)

La ribonucleoprotein, SSB antigen,  
Sjögren's syndrome antigen B

**Source:** Calf Thymus

**Uniprot ID:** P10881

#### ORDERING INFORMATION

ALA01-02 0.20mg

ALA01-10 1.0mg

### Nucleosome

Core histones (H2A, H2B, H3, H4)  
and DNA (approximately 146 bp)

**Source:** Calf Thymus

**Uniprot ID:** P0C0S4 A5D7N2 Q5E9F8 P62803

#### ORDERING INFORMATION

ATN02-02 0.20mg

ATN02-10 1.0mg

### RNP-Sm

U1 snRNP antigen

**Source:** Calf Thymus

**Uniprot ID:** please see website

#### ORDERING INFORMATION

ATR01-02 0.20mg

ATR01-10 1.0mg

### RNP-68K (Sm-free)

U1 snRNP 68K subunit, U1 snRNP 70K subunit

**Source:** Calf Thymus

**Uniprot ID:** Q1RMR2

#### ORDERING INFORMATION

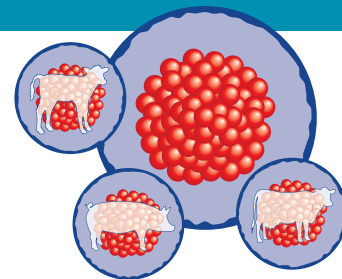
ATR04-02 0.20mg

ATR04-10 1.0mg

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BULK QUANTITIES AVAILABLE





## NATIVE ANTIGENS - ANIMAL DERIVED

### Ro(SSA)

Ro RNP, SSA antigen, Ro60 antigen, Sjögren's syndrome antigen A

**Source:** Calf Thymus

**Uniprot ID:** F1MIZ7

#### ORDERING INFORMATION

ATR02-02 0.20mg

ATR02-10 1.0mg

### Scl-70

DNA topoisomerase I, TOP I

**Source:** Calf Thymus

**Uniprot ID:** F1MN93

#### ORDERING INFORMATION

ATS01-02 0.20mg

ATS01-10 1.0mg

### Sm

Smith antigens, nRNP D subunit

**Source:** Calf Thymus

**Uniprot ID:** Q3ZC10 Q3SZF8 F1MZ00

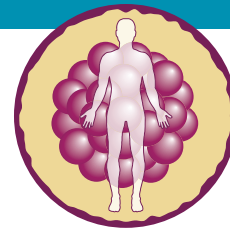
#### ORDERING INFORMATION

ATS02-02 0.20mg

ATS02-10 1.0mg

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BULK QUANTITIES AVAILABLE



## NATIVE ANTIGENS - HUMAN DERIVED

### Beta-2-Glycoprotein 1

Apolipoprotein H, APOH, activated protein C-binding protein, APC inhibitor

**Source:** Human Plasma

**Uniprot ID:** P02749

#### ORDERING INFORMATION

ATG01-10 1.0 mg

### Calprotectin

Protein S100, Calgranulin, migration inhibitory factor-related protein

**Source:** Human Leukocytes

**Uniprot ID:** P06702, P05109

#### ORDERING INFORMATION

ATC04-02 0.20 mg

ATC04-10 1.0 mg

### Elastase

Human leukocyte elastase, HLE, Elastase 2

**Source:** Human Neutrophils

**Uniprot ID:** P08246

#### ORDERING INFORMATION

ATE01-02 0.20 mg

ATE01-10 1.0 mg

### Rheumatoid factor antigen

Human IgG Fc fragment

**Source:** Human Plasma

**Uniprot ID:** N/A

#### ORDERING INFORMATION

ATF01-10 1.0 mg

### Proteinase 3 (cANCA)

Myeloblastin, p29, AGP7

**Source:** Human Neutrophils

**Uniprot ID:** P24158

#### ORDERING INFORMATION

ATP02-02 0.20 mg

ATP02-10 1.0 mg

### BPI

Bacterial/permeability-increasing protein, CAP57

**Source:** Human Neutrophils

**Uniprot ID:** P17213

#### ORDERING INFORMATION

ATB01-02 0.20 mg

ATB01-10 1.0 mg

### Cathepsin G

CTSG

**Source:** Human Neutrophils

**Uniprot ID:** P08311

#### ORDERING INFORMATION

ATC01-02 0.20 mg

ATC01-10 1.0 mg

### Eosinophil Cationic Protein

ECP, Ribonuclease 3, RNase3

**Source:** Human Eosinophils

**Uniprot ID:** P12724

#### ORDERING INFORMATION

ATE03-02 0.20 mg

ATE03-10 1.0 mg

### Myeloperoxidase (pANCA)

Myeloperoxidase, pANCA antigen

**Source:** Human Neutrophils

**Uniprot ID:** P05164

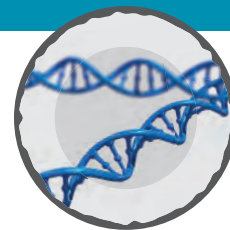
#### ORDERING INFORMATION

ATM01-02 0.20 mg

ATM01-10 1.0 mg

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BULK QUANTITIES AVAILABLE



## RECOMBINANT ANTIGENS

### CENP-B

Major centromere autoantigen B, Centromere protein B

**Source:** Sf21 cells  
**Uniprot ID:** P07199

#### ORDERING INFORMATION

ATC02-02 0.20mg  
ATC02-10 1.0mg

### PCNA

Proliferating cell nuclear antigen, Cyclin

**Source:** Sf21 cells  
**Uniprot ID:** P12004

#### ORDERING INFORMATION

ATP03-02 0.20mg  
ATP03-10 1.0mg

### Tissue Transglutaminase (tTG)

TGM2, Transglutaminase 2, TG2, TGase-C, TGase-H

**Source:** Sf21 cells  
**Uniprot ID:** P21980

#### ORDERING INFORMATION

ATT01-02 0.20mg  
ATT01-10 1.0mg

### Liver Cytosol-1 (LC-1)

Liver cytosol antigen 1, formiminotransferase cyclodeaminase, FTCD

**Source:** Sf21 cells  
**Uniprot ID:** O95954

#### ORDERING INFORMATION

ATL04-02 0.20mg  
ATL04-10 1.0mg

### Ro52

Ro52 antigen

**Source:** Sf21 cells  
**Uniprot ID:** P19474

#### ORDERING INFORMATION

ATR05-02 0.20mg  
ATR05-10 1.0mg

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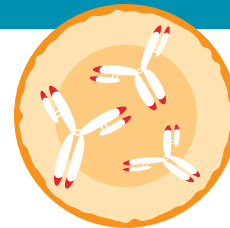
BULK QUANTITIES AVAILABLE

**Postal Address:**  
PO Box 38586  
Wellington Mail Centre  
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New Zealand

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Wellington 5010  
New Zealand

**Contact Information:**  
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Fax: +64 4 569 0366  
Email: [info@arodia.com](mailto:info@arodia.com)  
Web: [www.arodia.com](http://www.arodia.com)





## ANTIBODIES

### Anti-Myeloperoxidase IgG

Protein G purified

**Source:** Goat

[ORDERING INFORMATION](#)

ABM01-10 1.0mg

### Anti-Calprotectin IgG

Protein G purified

**Source:** Goat

[ORDERING INFORMATION](#)

ABC04-10 1.0mg

### Anti-Calprotectin monoclonal IgG

Protein G purified

**Source:** Mouse

[ORDERING INFORMATION](#)

AMC04-02 0.20mg

AMC04-10 1.0mg

### Anti-Proteinase 3 IgG

Protein G purified

**Source:** Goat

[ORDERING INFORMATION](#)

ABP02-10 1.0mg

### Anti-Eosinophil Cationic Protein IgG

Protein G purified

**Source:** Sheep

[ORDERING INFORMATION](#)

ABE02-10 1.0mg

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