



Anti - Calprotectin IgG Mouse Monoclonal

Overview:

AROTEC Anti-Calprotectin IgG monoclonal antibody is protein G purified using chromatographic methods. This product is >90% purity as assessed by SDS polyacrylamide gel electrophoresis. This product will bind calprotectin autoantigens when utilised in immunoassays.

Immunogen: Human Calprotectin (ATC04).

Reactivity: Human, may cross react with other species.

Applications: ELISA, WB.

Ordering Information:

AMC04-02 0.20mg

AMC04-10 1.0mg

Custom pack sizes available on request

Storage Conditions:

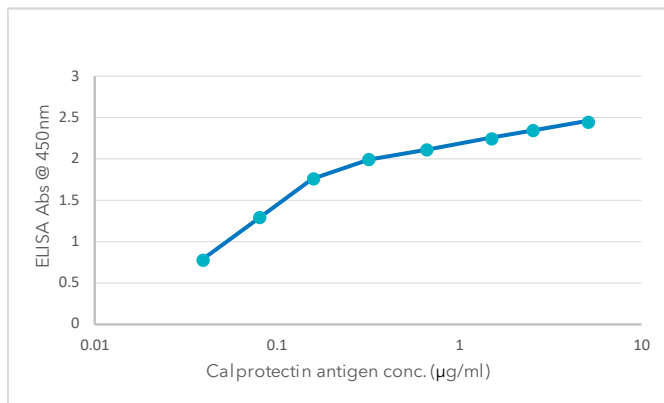
-65°C or below (LONG TERM), -20°C (SHORT TERM)

Avoid repeated freezing and thawing

Mix gently and centrifuge before use

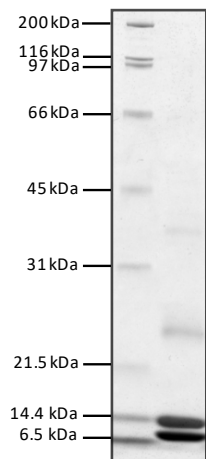
Clear colourless/pearlescent solution when thawed

ELISA:



AROTEC anti-Calprotectin IgG polyclonal coated as capture antibody (ABC04-10). Differing concentrations of AROTEC Calprotectin (ATC04-10) incubated on plate with anti-Calprotectin IgG monoclonal used as detection (AMC04-10).

SDS-PAGE Gel



Calprotectin Antigen run on 12% SDS-PAGE gel. 10kDa (S100A8) and 14kDa (S100A9) subunits visible on gel.

Western Blot



Calprotectin Immunoblot. Anti-Calprotectin monoclonal IgG coated at 2.5µg/ml. Detection antibody anti-mouse IgG-HRP conjugate coated at 1:6000.

Background Information:

Calprotectin is an important calcium signalling protein involved in wound healing. A complex of both MRP14 and MRP8, calprotectin plays a role in vascular inflammation and leukocyte recruitment.

Extracellular release of calprotectin during cell damage/stress can be used as a marker for intestinal inflammation.

There is growing evidence that faecal calprotectin correlates with mucosal disease activity which can be utilised in monitoring relapse and treatments in inflammatory bowel disease.

AROTEC ELISA Methodology:

1. ELISA plate was coated with AROTEC goat anti-calprotectin polyclonal antibody @ 2 µg/ml (O/N 4°C), in carbonate coating buffer (50mM Sodium Carbonate, pH 9.8, 0.5% NaN₃); 0.1 ml per well.
2. Plate was washed 3x ELISA wash buffer (20mM Tris-HCL, pH 7.5; 0.3M NaCl; 0.1% Tween 20).
3. Plate was blocked for 1hr at RT (20mM Tris-HCL, pH 7.5; 0.15M NaCl; 1.0% BSA); 0.2 ml per well.
4. Plate was incubated with AROTEC calprotectin antigen @ 0-10 µg/ml in PBS for 1 hr at RT, 0.1 ml per well.
5. Plate was washed 3x (ELISA wash buffer).
6. Plate was incubated with AROTEC mouse anti-calprotectin monoclonal antibody @ 1µg/ml in antibody dilution buffer (20mM Tris-HCL, pH 7.5; 0.3M NaCl; 0.1% Tween 20, 1.0% BSA, 1.0% Caseinate) for 1 hr at RT, 0.1 ml per well.
7. Plate was washed 3x (ELISA wash buffer).
8. Plate was incubated with anti-mouse IgG-HRP conjugate at 1:10,000 dilution in antibody dilution buffer for 1 hr at RT; 0.1 ml per well.
9. Plate was washed 3x (ELISA wash buffer).
10. Wells developed using TMB substrate; 0.15 ml per well.
11. Reaction was stopped with 2M H₂SO₄; 0.05 ml per well.