Mouse Chemerin Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF2325

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Chemerin in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 20% cross-reactivity with recombinant human Chemerin is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse Chemerin Thr17-Ser156 Accession # Q9DD06
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

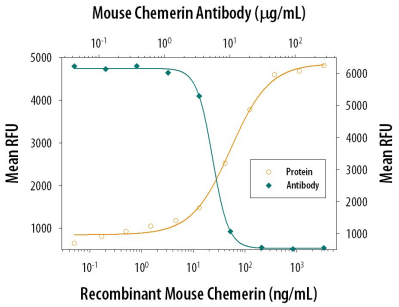
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Chemerin (Catalog # 2325-CM)
Neutralization	Measured by its ability to neutralize Chemerin-induced chemotaxis in the BaF3 mouse pro-B cell line transfected with human Chem R23. The Neutralization Dose (ND_{50}) is typically 3-9 µg/mL in the presence of 100 ng/mL Recombinant Mouse Chemerin.	

DATA

Neutralization



Chemotaxis Induced by Chemerin and Neutralization by Mouse Chemerin Antibody. Recombinant Mouse Chemerin (Catalog # 2325-CM) chemoattracts the BaF3 mouse pro-B cell line transfected with human Chem R23 in a dose-dependent manner (orange line). The amount of cells that migrated through to the lower chemotaxis chamber was measured by Resazurin (Catalog # AR002). Chemotaxis elicited by Recombinant Mouse Chemerin (100 ng/mL) is neutralized (green line) by increasing concentrations of Goat Anti-Mouse Chemerin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2325). The ND_{50} is typically 3-9 µg/mL.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

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BACKGROUND

Mouse Chemerin, also known as Tazarotene-induced Gene-2 (TIG2), is a new, but distant member of the cystatin superfamily (1-3). Members of this superfamily contain at least two intrachain disulfide bonds and an α-helical structure over a distance of about 100 amino acids (2, 3). Chemerin is synthesized as a 162 amino acid (aa) precursor that contains a hydrophobic N-terminal sequence, an intervening 140 aa cystatin-fold containing domain, and a six aa C-terminal prosegment (4-6). Within the cystatin-fold domain there are three intrachain disulfide bonds that contribute to the characteristic fold (4, 7). The precursor molecule is described as undergoing proteolytic processing at both termini by unknown proteases. The N-terminal 16 residue hydrophobic segment is described as being either a signal sequence or a transmembrane (TM) segment for a type II TM protein (5, 8). In either case it gives rise to a soluble proform that undergoes further processing at the C-terminus (5). In mouse, the C-terminal six residues are cleaved, giving rise to a monomeric, 16 kDa heparin-binding bioactive molecule (aa 17-156) (5-7). A shorter form has been described in human (7). The activity seems to be concentrated in the nine aa's preceding the prosegment (aa 148-156). Retention of the prosegment blocks activity (4). The 140 aa mature segment is known to bind to the G-protein coupled receptor termed ChemR23 (5, 7). Binding results in macrophage and immature dendritic cell chemotaxis (5). The distribution of this receptor is limited to immune APCs, and it is assumed that Chemerin is an inflammatory molecule. It is unclear which cells are actually producing Chemerin, but keratinocytes, endothelial cells and osteoclasts are potential candidates (1, 7). Mature mouse Chemerin shares 67%, 84%, and 82% aa sequence identity to human, rat, and hamster Chemerin, respectively (6). There is apparently cross-species activity for the protein (6).

References:

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PRODUCT SPECIFIC NOTICES

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