

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Chemerin in ELISAs. In sandwich immunoassays, no cross-reactivity or interference with recombinant human Chemerin, recombinant mouse (rm) Cystatin C, or rmFetuin A is observed.
Source	Monoclonal Rat IgG _{2B} Clone # 372409
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant mouse Chemerin Thr17-Ser156 Accession # Q9DD06
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

ELISA Capture (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.
ELISA Detection (Matched Antibody Pair)	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

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 (aa) (2, 3). Chemerin is synthesized as a 162 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 with human, rat and hamster Chemerin, respectively (6). There is apparently cross-species activity for the protein (6).

PRODUCT SPECIFIC NOTICES

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