Human CRIM1 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1917G
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CRIM1 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CRIM1 Leu35-Ser939 Accession # Q9NZV1
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 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.*

Western Blot	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

Cysteine rich motor neuron 1 (CRIM1) is a type I transmembrane glycoprotein of the chordin-like cysteine-rich repeat (CRR) family of BMP inhibitors (1-4). The ~130 kDa, 1036 amino acid (aa) CRIM1 contains a 34 aa signal sequence, a 905 aa extracellular domain (ECD), a 21 aa transmembrane domain and a 76 aa cytoplasmic domain. The ECD includes an N-terminal IGF-binding protein-like motif and six chordin-like von Willebrand C-type CRRs. The ECD can be released from the cell, presumably by proteolytic processing (4). Human CRIM1 ECD shows 88%, 88%, 91%, 86%, 87%, 83% and 72% aa identity with mouse, rat, dog, cow, opossum, chick and zebrafish CRIM1 ECD, respectively. CRIM1 can interact with TGF-β family ligands, including BMPs 2, 4 and 7, via its CRR domains (4). It binds BMPs intracellularly and antagonizes them by lowering their expression, processing and secretion (4). CRIM1 is expressed in the developing spinal cord in the floor plate and developing motor neurons (1). It is also expressed by perivascular smooth muscle cells and aligns at points of cell-cell contact during endothelial cell capillary formation (2). Endothelial cell expression in vitro appears to be specific to cells that are adherent and growing (2). CRIM1 is also expressed in a spatially and temporally restricted manner in the developing lens, limbs, kidney, teeth and testis (5). Studies where CRIM1 expression is manipulated in developing mouse, chick and zebrafish support its involvement in regulation of vascular and somitic development and organogenesis (5-7).

PRODUCT SPECIFIC NOTICES

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