Human SALM4/LRFN3 Antibody

Antigen Affinity-purified Polyclonal Goat IgG

Catalog Number: AF5349

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SALM4/LRFN3 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human SALM3 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human SALM4/LRFN3 Ser17-Met539 Accession # Q9BTN0
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 as a 0.2 μm filtered solution in PBS.

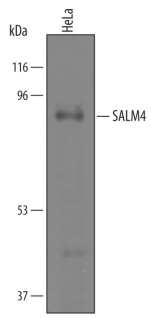
APPLICATIONS

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	1 µg/mL	See Below

DATA

Western Blot



Detection of Human SALM4/LRFN3 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human SALM4/LRFN3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5349) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for SALM4/LRFN3 at approximately 90 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 8.

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.

BACKGROUND

Synaptic adhesion-like molecule 4 (SALM4; also leucine-rich repeat and fibronectin type-III domain-containing protein 3 (Lrfn3) is an approximately 90 kDa member of the Lrfn family of type I transmembrane glycoproteins (1). Human SALM4 is synthesized as a 628 amino acid (aa) precursor that contains a 16 aa signal sequence, a 523 aa extracellular domain (ECD), a 21 aa transmembrane region, and a 68 aa cytoplasmic region. The ECD consists of six leucine-rich repeats (LRR), an IgC2-like domain, and a fibronectin type-III domain, tandemly aligned in that order (1, 2). In addition, there are five potential sites for N-linked glycosylation. SALM4 and -5 lack a C-terminal intracellular PDZ binding domain, which is conserved among SALMs 1-3. Mature human SALM4 shares 96% aa sequence identity with mature mouse SALM4. Northern blot analysis showed that in mice, SALM4 is strongly expressed in the adult brain and is also present in the adult gastrointestinal tract and kidneys (1). It is distributed throughout the neuron, including the growth cone (3). In the developing mouse embryo, a temporal expression profile blot revealed a general increment of expression around E10.5, with weak expression detected before E10.5 (1). SALM4, like the other SALMs, promotes neurite outgrowth (3). Specifically, the SALMs modify total outgrowth and neurite branching (3).

References:

1. Morimura, N. *et al.* (2006) Gene **380**:72.
2. Wang, C.-Y. *et al.* (2006) J. Neurosci. **26**:2174.
3. Wang, P.Y. *et al.* (2008) Mol. Cell. Neurosci. **39**:83.

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