

DESCRIPTION

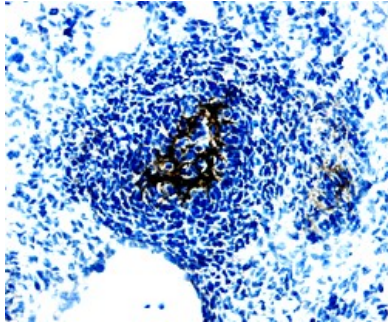
Species Reactivity	Mouse
Specificity	Detects mouse WISP-1/CCN4 in direct ELISAs and Western blots. In Western blots, approximately 10% cross-reactivity with recombinant human (rh) WISP-1 is observed and less than 1% cross-reactivity with rhCTGF and recombinant mouse NOV is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse WISP-1/CCN4 Thr23-Asn367 Accession # O54775
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 WISP-1/CCN4 (Catalog # 1680-WS)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

<p>Immunohistochemistry</p> 	<p>WISP-1/CCN4 in Mouse Embryo. WISP-1/CCN4 was detected in immersion fixed frozen sections of mouse embryo (13 d.p.c.) using 15 µg/mL Sheep Anti-Mouse WISP-1/CCN4 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1680) overnight at 4 °C. Tissue was stained with the Anti-Sheep HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS019) and counterstained with hematoxylin (blue). Specific labeling was localized to developing epithelial cells in duodenum. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.</p>
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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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 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

Mouse WISP-1 (Wnt-induced secreted protein-1; also named CNN4) is a 40 kDa, secreted, heparin-binding glycoprotein that is a member of the CCN (or CTGF/Cyr61/Nov) cysteine-rich protein family (1-6). It is synthesized as a 367 amino acid (aa) precursor that contains a series of structural homology modules. Following a 22 aa signal sequence, there is a 68 aa IGF1-like domain (aa 53-120), a 66 aa von Willebrand factor type C (VWC) module (aa 121-186), a 41 aa TSP type I domain (aa 220-260) and a 75 aa, C-terminal cysteine knot motif (aa 273-347) (1, 6). The VWC module is associated with protein-protein interaction, the TSP domain binds sulfated glycoconjugates, and the cysteine knot mediates dimerization and receptor binding (4). It is likely that WISP-1 normally circulates as an 80 kDa homodimer (2). Multiple splice forms are reported for human WISP-1, but none for rodent (7-9). Mature mouse WISP-1 is 98%, 84% and 85% aa identical to rat, canine and human WISP-1, respectively. WISP-1 is expressed by fibroblasts and osteoblasts, and may contribute to fracture healing by promoting bone cell formation (1, 10, 11).

References:

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