Mouse WISP-1/CCN4 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF1680

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.

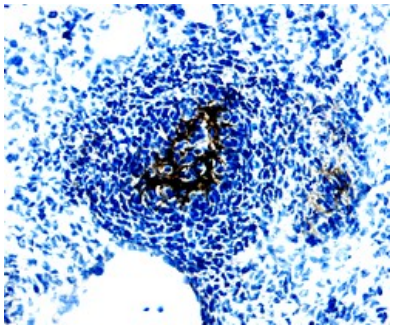
APPLICATIONS

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

Immunohistochemistry



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.

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.
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 from date of receipt, 2 to 8 °C, reconstituted. ● 6 months from date of receipt, -20 to -70 °C, reconstituted.

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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 IGFBP-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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