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KREMEN1 Antibody
Catalog # ASC11626

Specification

KREMEN1 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	Q96MU8
Other Accession	NP_114434, 24041012
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**54 kDa KDa**
Application Notes	**KREMEN1 antibody can be used for detection of KREMEN1 by Western blot at 0.125 - 0.25 µg/mL.**

KREMEN1 Antibody - Additional Information

Gene ID **83999**

Target/Specificity
KREMEN1; Three isoforms of KREMEN1 exists as a result of alternative splicing event.

Reconstitution & Storage
KREMEN1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
KREMEN1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KREMEN1 Antibody - Protein Information

Name KREMEN1

Synonyms KREMEN, KRM1

Function
Receptor for Dickkopf proteins. Cooperates with DKK1/2 to inhibit Wnt/beta-catenin signaling by promoting the endocytosis of Wnt receptors LRP5 and LRP6. In the absence of DKK1, potentiates Wnt-beta- catenin signaling by maintaining LRP5 or LRP6 at the cell membrane. Can trigger apoptosis in a Wnt-independent manner and this apoptotic activity is inhibited upon binding of the ligand DKK1. Plays a role in limb development; attenuates Wnt signaling in the developing limb to allow normal limb patterning and can also negatively regulate bone formation. Modulates cell fate decisions in the developing cochlea with an inhibitory role in hair cell fate specification.

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:Q99N43}; Single-pass type I membrane protein

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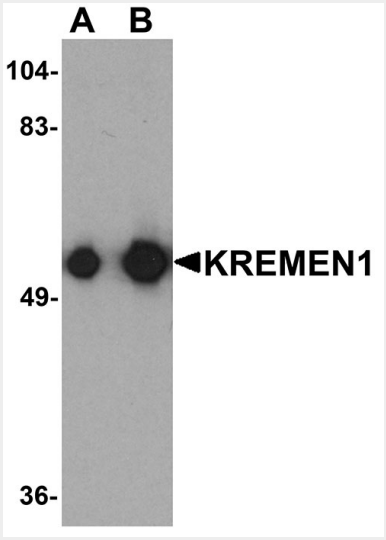
KREMEN1 Antibody - Protocols

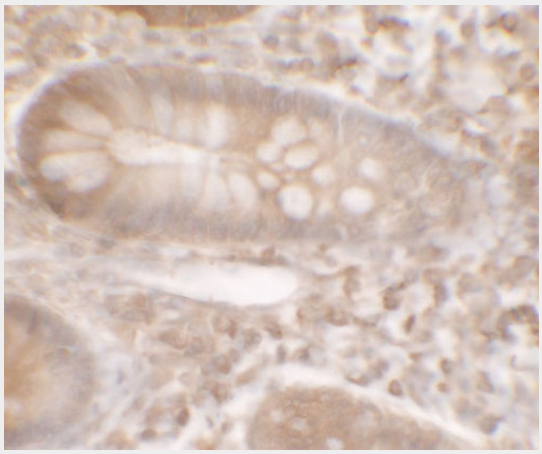
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KREMEN1 Antibody - Images



Western blot analysis of KREMEN1 in rat small intestine tissue lysate with KREMEN1 antibody at (A) 0.125 and (B) 0.25 µg/mL



Immunohistochemistry of KREMEN1 in human small intestine tissue with KREMEN1 antibody at 5 µg/ml.

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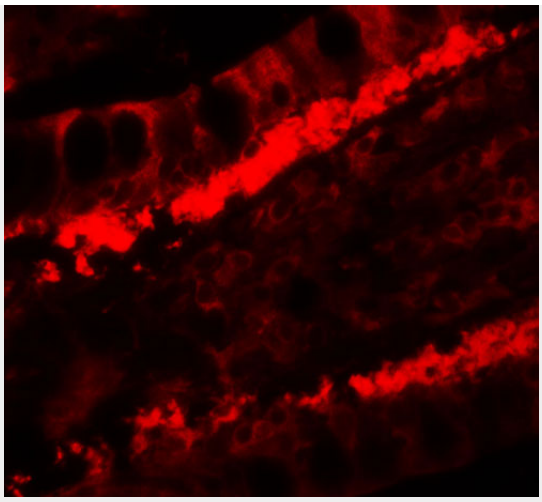

Immunofluorescence of KREMEN1 in human small intestine tissue with KREMEN1 antibody at 20 µg/ml.

KREMEN1 Antibody - Background

KREMEN1 Antibody: Kremen (Kringle containing protein marking the eye and the nose) proteins are type I transmembrane proteins that contain extracellular kringle, WSC and CUB domains and an intracellular region without any conserved motifs. Kremens bind a subset of the secreted Dickkopf proteins (Dkk 1, 2, and 4) with high affinity to modulate the canonical Wnt signaling pathway that is transduced by the ternary receptor complex composed of Wnt, Frizzled, and the LDL receptor related protein 5/6 (LRP5/6) coreceptor. KREMEN1 is a receptor for the Dickkopf protein which blocks Wnt/beta catenin signaling. It is necessary to ensure normal spatial and temporal patterns of Wnt activity during developmental processes.

KREMEN1 Antibody - References

Nakamura T, Aoki S, Kitajima K, et al. Molecular cloning and characterization of Kremen, a novel kringle-containing transmembrane protein. Biochim. Biophys. Acta. 2001; 1518:63-72.
Mao B, Wu W, Davidson G, et al. Kremen proteins are Dickkopf receptors that regulate Wnt/beta-catenin signalling. Nature 2002; 417:664-7.
Li J, Liu WM, Cao YJ, et al. Roles of Dickkopf-1 and its receptor Kremen1 during embryonic implantation in mice. Fertil. Steril. 2008; 90:1470-9.
Wang K, Zhang Y, Li X, et al. Characterization of the Kremen-binding site on Dkk1 and elucidation of the role of Kremen in Dkk-mediated Wnt antagonism. J. Biol. Chem. 2008; 283:23371-5.