10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KREMEN2 Antibody

Catalog # ASC11627

Product Information

Application	WB, ICC, E
Primary Accession	Q8NCW0
Other Accession	NP_757384, 27437008
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	48849
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	KREMEN2 Antibody can be used for detection of KREMEN2 by Western blot starting at 1 g/mL.

Additional Information

Gene ID	79412
Other Names	Kremen protein 2, Dickkopf receptor 2, Kringle domain-containing transmembrane protein 2, Kringle-containing protein marking the eye and the nose, KREMEN2, KRM2
Target/Specificity	KREMEN2; Multiple isoforms of KREMEN2 are known to exist. KREMEN2 antibody is predicted to not cross-react with other Kremen protein family members.
Reconstitution & Storage	KREMEN2 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	KREMEN2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	KREMEN2
Synonyms	KRM2
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. 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.
Cellular Location	Membrane; Single-pass type I membrane protein

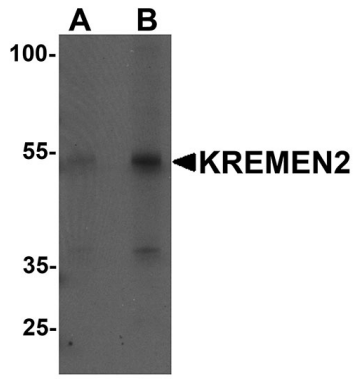
Background

KREMEN2 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) co-receptor. Recent experiments have shown that KREMEN2 is a regulator of bone remodeling and raise the possibility that antagonizing KREMEN2 might prove beneficial in patients with bone loss disorders.

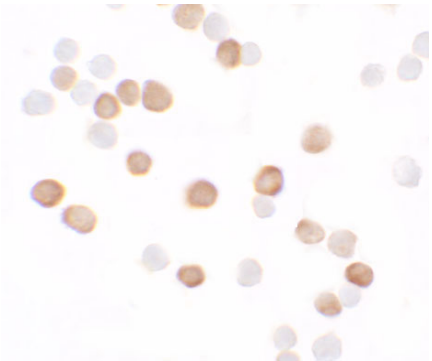
References

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.
Schulze J, Seitz S, Saito H, et al. Negative regulation of bone formation by the transmembrane Wnt antagonist Kremen-2. PLoS 2010; 5:e10309.

Images



Western blot analysis of KREMEN2 in HeLa cell lysate with KREMEN2 antibody at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of KREMEN2 in HeLa cells with KREMEN2 antibody at 5 µg/ml.