Dkk-4 Polyclonal Antibody(Capture/Detector)

catalog number: AN004530P

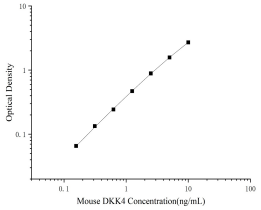
Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

Description

Reactivity	Mouse
Immunogen	Recombinant Mouse Dkk-4 Protein expressed by E.coli
Host	Rabbit
Isotype	Rabbit IgG
Purification	Antigen Affinity Purification
Buffer	Phosphate buffered solution, pH 7.2, containing 0.05% proclin 300.

Applications	Recommended Dilution
ELISA Capture	2-8 μg/mL
ELISA Detector	0.1-0.4 μg/mL

Data



Sandwich ELISA-Recombinant Mouse Dkk-4 Protein standard curve.Background subtracted standard curve using Anti-Dkk-4 antibody(AN004530P)(Capture),Anti-Dkk-4 antibody(AN004530P)(Detector).The reference range value is 0.16~10ng/mL for mouse.

Preparation & Storage

Storage	Store at 4°C valid for 12 months or -20°C valid for long term storage, avoid freeze / thaw cycles.
Shipping	The product is shipped with ice pack, upon receipt, store it immediately at the temperature recommended.

Background

Toll-free: 1-888-852-8623
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Dickkopf related protein 4 (Dkk-4) is a member of the Dkk protein family that includes Dkk-1, -2, -3, and -4. All four members are secreted proteins that are synthesized as precursor proteins with an N-terminal signal peptide and 2 conserved cysteine-rich domains, which are separated by a linker region. Dkk proteins have potential furin type proteolytic cleavage sites, and short forms of Dkk-2 and Dkk-4 containing only the second cysteine-rich domain can be generated by proteolytic processing. Dkk proteins have distinct patterns of expression in adult and embryonic tissues, suggesting that they may play diverse roles in these tissues. The Dkk proteins have distinct effects on Wnt signaling. Dkk-1 and Dkk-4 are Wnt antagonists. Dkk-3 has not been demonstrated to affect Wnt signaling, and Dkk-2 acts as an agonist or antagonist, depending on the cellular context. Wnt signaling regulates many important developmental processes including neural crest differentiation, brain development, kidney morphogenesis, and sex determination. In addition, Wnt signaling has also been implicated in tumor formation. Canonical Wnt signaling via the beta -catenin pathway is transduced by a receptor complex composed of the Frizzled proteins (Fz) and low-density lipoprotein (LDL) receptor-related proteins (LRP5/6). Unlike many soluble Wnt antagonists that function by binding extracellular Wnt ligands to prevent interaction of Wnt with the Fz-LRP5/6 receptor complex, Dkk-1 and Dkk-4 antagonize Wnt/ beta -catenin signaling by direct high-affinity binding to the Wnt coreceptor LRP5/6 and inhibiting interaction of LRP5/6 with the Wnt-Frizzled complex. Dkk-1 and Dkk-4 also bind the transmembrane proteins Kremen1 (Krm1) and Krm2 with high-affinity. Krm2 has been shown to form a ternary complex with Dkk-1 or -4 and LRP5/6 to trigger internalization of the complex and removal of LRP6 from the cell surface. Thus, Dkk-1/4 and Kremens function synergistically to antagonize LRP5/6-mediated Wnt activity. Dkk-2 also binds to LRP5/6 and the Kremens, but Dkk-2 acts as an antagonist of the Wnt signaling pathway only in the presence of Krm2. Dkk-2 binding to LRP5/6 in the absence of Krm2 activates rather than inhibits Wnt signalling.

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