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Product Datasheet

Rat DKK1 protein, His and GST tag, Unconjugated GTX00063-PRO

Article Name	Rat DKK1 protein, His and GST tag, Unconjugated
Biozol Catalog Number	GTX00063-PRO
Supplier Catalog Number	GTX00063-pro
Alternative Catalog Number	GTX00063-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Rat
Conjugation	Unconjugated
NCBI	293897
UniProt	D3Z9J1
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His and GST-Tag, Val36~Asn260 (NP_001099820.1)

Application Notes

Dickkopf-related protein 1 (DKK1) is a protein which is a member of the dickkopf family. It is a secreted protein with two cysteine rich regions and is involved in embryonic development through its inhibition of the Wnt signaling pathway. Dickkopf WNT signaling pathway inhibitor 1 (Dkk1) is a protein-coding gene that acts from the anterior visceral endoderm. The dickkopf protein encoded by DKK1 is an antagonistic inhibitor of the WNT signaling pathway that acts by isolating the CTNNb1 co-receptor so that it cannot aid in activating the WNT signaling pathway. DKK1 was also demonstrated to antagonize the Wnt/beta-catenin pathway via a reduction in beta-catenin and an increase in OCT4 expression. Besides, Low Density Lipoprotein Receptor Related Protein 5 (LRP5) has been identified as an interactor of DKK1 thus a binding ELISA assay was conducted to detect the interaction of recombinant rat DKK1 and recombinant rat LRP5. Briefly, DKK1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to LRP5-coated microtiter wells and incubated for 2h at 37C. Wells were washed with PBST and incubated for 1h with anti-DKK1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37C. Finally, add 50 µl stop solution to the wells and read at 450nm immediately. The binding activity of DKK1 and LRP5 was in a dose dependent manner.