Human Gremlin 1 protein, His tag (active)

Cat. No. GTX00209-pro

Applications	Functional Assay	<mark>Package</mark> 10 μg
Species	Human	15

Applications

Application Note

Gremlin (GREM1) is an inhibitor in the TGF beta signaling pathway. GREM1 and other BMP antagonists are important in the survival of cancer stroma survival and proliferation in some cancers. The protein expression is found in many cancers and is thought to play important roles in uterine cervix, lung, ovary, kidney, breast, colon, pancreas, and sarcoma carcinomas. To test the effect of GREM1 on inhibit cell proliferation, 3T3 cells were seeded into triplicate wells of 96-well plates at a density of 5000 cells/well and allowed to attach, replaced with serum-free overnight, then the medium was replaced with 2% serum standard DMEM including various concentrations of recombinant human GREM1. After incubated for 96h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 µl of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of 3T3 cells after incubation with GREM1 for 96h observed by inverted microscope. Cell viability was assessed by CCK-8 (Cell Counting Kit-8) assay after incubation with recombinant GREM1 for 96h that GREM1 significantly increased cell viability of 3T3 cells.

Observed MW (kDa) 23 kDa.

Properties		
Form	Lyophilized powder	
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.	
Preservative	ProClin 300	
Storage	For short-term storage (1-2 weeks), store at 4°C. For long-term storage, store at -20°C or below. After reconstitution, keep as concentrated solution. Avoid freeze-thaw cycles.	
Region/Sequence	N-terminal His-Tag; Lys26~Asp184 (NP_001178252.1)	
Expression System	E. coli	
Purity	> 97%	
Endotoxin	< 1 EU/µg	
Conjugation	Unconjugated	
Note	For laboratory use only. Not for any clinical, therapeutic, or diagnostic use in humans or animals. Not for animal or human consumption.	



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DATA IMAGES



GTX00209-pro Functional Assay Image

Cell suppression effect of GTX00209-pro Human Gremlin 1 protein (active). Cell viability was measured by Cell Counting Kit-8 (CCK-8).

(A) Unstimulated 3T3 cells cultured in DMEM for 96hrs.

(B) 3T3 cells cultured in DMEM, stimulated with 0.1 ng/ml GREM1 for 96hrs.



kDa 70 -44 -33 -22 -18 -14 -10 -

GTX00209-pro Image

WB analysis of GTX00209-pro Human Gremlin 1 protein (active).

GTX00209-pro Image

SDS-PAGE analysis of GTX00209-pro Human Gremlin 1 protein (active).



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