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## Product Datasheet

### Human Semaphorin 3A protein, His tag, Unconjugated GTX00179-PRO

Artikelname	Human Semaphorin 3A protein, His tag, Unconjugated
Artikelnummer	GTX00179-PRO
Hersteller Artikelnummer	GTX00179-pro
Alternativnummer	GTX00179-PRO-10
Hersteller	GeneTex
Kategorie	Proteine/Peptide
Applikation	FA
Spezies Reaktivität	Human
Konjugation	Unconjugated
NCBI	<a href="#">10371</a>
UniProt	<a href="#">Q14563</a>
Puffer	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
Formulierung	Lyophilized powder
Sequenz	N-terminal His-Tag, Pro580~Thr664 (NP_006071.1)

#### Anwendungsbeschreibung

Semaphorin 3A (SEMA3A) is a member of the semaphorin family. Semaphorin 3A is secreted by neurons and surrounding tissue to guide migrating cells and axons in the developing nervous system. This secreted Sema3A protein can function as either a chemorepulsive agent, inhibiting axonal outgrowth, or as a chemoattractive agent, stimulating the growth of apical dendrites. In both cases, the protein is vital for normal neuronal pattern development. Besides, Neuropilin 1 (NRP1) has been identified as an interactor of SEMA3A, thus a binding ELISA assay was conducted to detect the interaction of recombinant human SEMA3A and recombinant human NRP1. Briefly, SEMA3A were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to NRP1-coated microtiter wells and incubated for 2h at 37C. Wells were washed with PBST and incubated for 1h with anti-SEMA3A 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 SEMA3A and NRP1 was in a dose dependent manner.