

32-20563: Recombinant Human Noggin(Discontinued)

Reactivity : Chicken, Dog, Human, Mouse, Rat

Description

Source:HEK293 cells

Noggin belongs to a group of diffusible proteins that bind to ligands of the TGF-Beta family, and regulate their activity by inhibiting their access to signaling receptors. The interplay between TGF-Beta ligands and their natural antagonists has major biological significance during development processes, in which cellular response can vary considerably depending upon the local concentration of the signaling molecule. Noggin was originally identified as a BMP-4 antagonist whose action was critical for proper formation of the head and other dorsal structures. Consequently, noggin has been shown to modulate the activities of other BMPs including BMP-2,-7,-13, and -14. Targeted deletion of noggin in mice results in prenatal death, and a recessive phenotype displaying a severely malformed skeletal system. Conversely, transgenic mice over-expressing noggin in mature osteoblasts display impaired osteoblastic differentiation, reduced bone formation, and severe osteoporosis. Recombinant Human Noggin is a 46 kDa disulfide-linked homodimer consisting of two 205 amino acid polypeptide chains. Monomeric glycosylated noggin migrates at an apparent molecular weight of approximately 28.0-33.0 kDa by SDS PAGE analysis under reducing conditions.

Product Info

Amount : 5 µg / 20 µg

Purification : Purity:>= 95% by SDS-PAGE gel and HPLC analyses.

Content : This recombinant protein is supplied in lyophilized form.

Amino Acid : QHYLHIRPAP SDNLPLVDLI EHPDPIFDPK EKDLNETLLR SLLGGHYDPG FMATSPPEDR PGGGGGAAGG
AEDLAELDQL LRQRPSGAMP SEIKGLEFSE GLAQGKKQRL SKKLRRKLQM WLWSQTFCPV
LYAWNDLGSF FWPRYVKVGS CFSKRSCSVP EGMVCKPSKS VHLTVLRWRC QRRGGQRCGW IPIQYPIISE
CKCSC

Application Note

Determined by its ability to inhibit 5.0 ng/ml of BMP-4 induced alkaline phosphatase production by ATDC chondrogenic cells. The expected ED_{50} for this effect is 2.0-3.0 ng/ml of Noggin.