Datasheet for ABIN2018288

NOG Protein (AA 20-232)

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Overview

Quantity:	25 µg
Target:	NOG
Protein Characteristics:	AA 20-232
Origin:	Mouse
Source:	CHO Cells
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Characteristics:	ED50< 60 ng/mL, measured in a bioassay using ATDC5 cells in the presence of 10 ng/mL human BMP-4.
Purity:	> 95 % as analyzed by SDS-PAGE.
Endotoxin Level:	< 0.2 EU/µg, determined by LAL method.

Target Details

Target:	NOG
Alternative Name:	Noggin (NOG Products)
Background:	Noggin, also known as NOG, is a homodimeric glycoprotein that binds to and modulates the activity of TGF-beta family ligands. It is expressed in condensing cartilage and immature chondrocytes. Noggin antagonizes bone morphogenetic protein (BMP) activities by blocking epitopes on BMPs needed for binding to their receptors.Noggin has been shown to be involved

Target Details

	in many developmental processes, such as neural tube formation and joint formation. During development, Noggin diffuses through extracellular matrices and forms morphogenic gradients that regulate cellular responses in a concentration-dependent manner. Synonyms: NOG
Molecular Weight:	29-31 kDa, observed by reducing SDS-PAGE.
UniProt:	P97466
Pathways:	Stem Cell Maintenance, Tube Formation

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Reconstituted in ddH2O or PBS at 100 µg/mL.
Buffer:	Lyophilized after extensive dialysis against PBS.
Storage:	-80 °C
Storage Comment:	Lyophilized recombinant murine Nogginremains stable up to 6 months at -80 °C from date of receipt. Upon reconstitution, murine Nogginshould be stable up to 1 week at 4 °C or up to 2 months at -20 °C.
Expiry Date:	6 months

Publications

Product cited in:	Pascual-Corrales, Gómez-Ambrosi, Moncada, Valentí, Catalán, Rodríguez, Ramírez, Silva, Gil, Salvador, Frühbeck: "Circulating ANGPTL8/Betatrophin Concentrations Are Increased After Surgically Induced Weight Loss, but Not After Diet-Induced Weight Loss." in: **Obesity surgery**, Vol. 26, Issue 8, pp. 1881-9, (2018) (PubMed). Abu-Farha, Abubaker, Tuomilehto: "ANGPTL8 (betatrophin) role in diabetes and metabolic diseases." in: **Diabetes/metabolism research and reviews**, Vol. 33, Issue 8, (2018) (PubMed). Calan, Yilmaz, Kume, Unal Kocabas, Yesil Senses, Senses, Temur, Gursoy Calan: "Elevated circulating levels of betatrophin are associated with polycystic ovary syndrome." in: **Endocrine**,

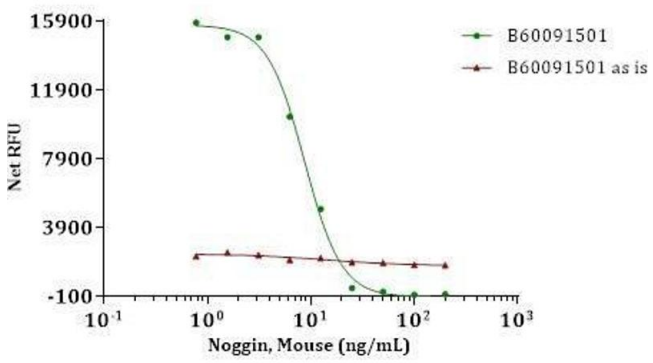
Publications

Vol. 53, Issue 1, pp. 271-9, (2017) (PubMed).

Ejarque, Borlaug, Vilarrasa, Martinez-Perez, Llauradó, Megía, Helland, Gutierrez, Serena, Folkestad, Nuñez-Roa, Roche, Casajoana, Fradera, González-Clemente, López, Mohn, Nedrebø, Nogueiras, Mellgren et al.: "Angiopoietin-like protein 8/betatrophin as a new determinant of type 2 diabetes remission after bariatric surgery. ..." in: **Translational research : the journal of laboratory and clinical medicine**, Vol. 184, pp. 35-44.e4, (2017) (PubMed).

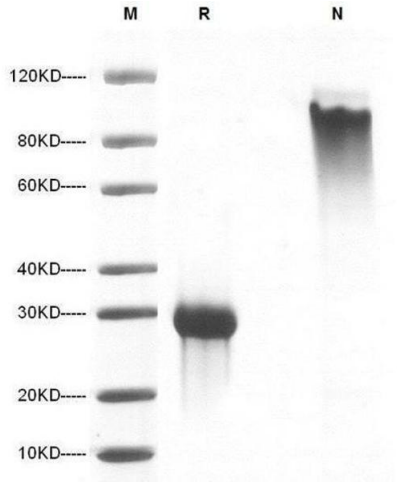
Wu, Gao, Ma, Fu, Zhang, Luo: "Characterisation of betatrophin concentrations in childhood and adolescent obesity and insulin resistance." in: **Pediatric diabetes**, Vol. 17, Issue 1, pp. 53-60, (2016) (PubMed).

Images



Activity Assay

Image 1. Noggin, Mouse inhibit BMP-4 induced alkaline phosphatase production in ATDC-5 cells in the presence of 10 ng/ml human BMP-4. The ED50 for this effect is less than 60ng/mL (8.7ng/mL)



SDS-PAGE

Image 2. 2 µg of Noggin, Mouse was resolved with SDS-PAGE under reducing (R) and non-reducing (N) conditions and visualized by Coomassie Blue staining.