Human GDNF Recombinant Protein, PeproTech®

Product Details	
Size	10 µg
Species	Human
Published Species	Avian, Rat, Virus, Non-human primate, Amphibian, Hamster, Human, Mouse, Xenopus
Expression system	E. coli
Amino acid sequence	MSPDKQMAVL PRRERNRQAA AANPENSRGK GRRGQRGKNR GCVLTAIHLN VTDLGLGYET KEELIFRYCS GSCDAAETTY DKILKNLSRN RRLVSDKVGQ ACCRPIAFDD DLSFLDDNLV YHILRKHSAK RCGCI
Molecular weight	30.4 kDa
Class	Recombinant
Type	Protein
Purity	98% by SDS-PAGE gel and HPLC analyses.
Endotoxin concentration	<1 EU/µg
Activity	Determined by a cell proliferation assay using SH-SY5Y cells. The expected ED50 for this effect is 1.0-10.0 ng/ml.
Conjugate	Unconjugated
Form	Lyophilized
Purification	purified
Contains	no preservative
Storage conditions	-20°C

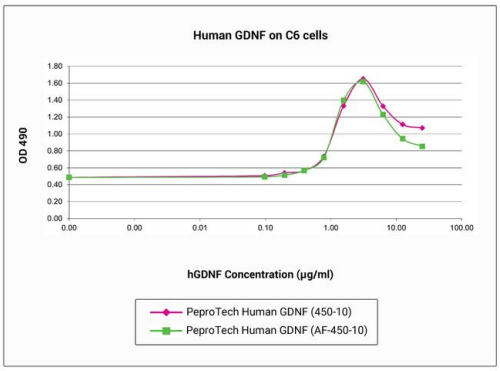
Applications	Tested Dilution	Publications
Western Blot (WB)	Assay-dependent	1 Publication
ELISA (ELISA)	Assay-dependent	-
Functional Assay (Functional)	Assay-dependent	2 Publications
In vitro Assay (IV)	-	285 Publications
Miscellaneous PubMed (Misc)	-	49 Publications

Product Specific Information

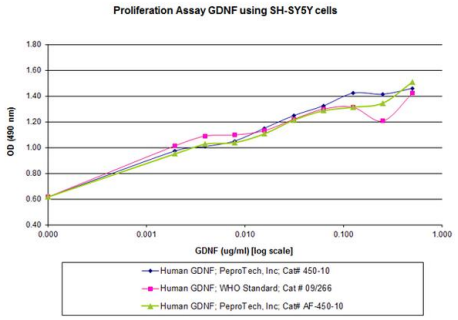
The functional human GDNF ligand is a disulfide-linked homodimer consisting of two 15 kDa polypeptide chains called monomers. Each monomer contains seven conserved cysteine residues, including Cys-101, which is used for inter-chain disulfide bridging, and others that are involved in the intramolecular ring formation known as the cysteine-knot configuration. The calculated molecular weight of Recombinant Human GDNF is 30.4 kDa.

This product is shipped at ambient temperature. For storage, handling and reconstitution information, please see the lot-specific Certificate of Analysis

Product Images For Human GDNF Recombinant Protein, PeproTech®



Human GDNF Protein (450-10-10UG) in Functional
Bioassay analysis of Human GDNF Recombinant Protein, PeproTech® (Product # 450-10-1MG).



Human GDNF Protein (450-10-10UG) in Functional
WHO Comparison of Human GDNF Recombinant Protein, PeproTech® (Product # 450-10-1MG).

337 References

Western Blot (1)

PloS one

Cyclical and patch-like GDNF distribution along the basal surface of Sertoli cells in mouse and hamster testes.

Authors: Sato T,Aiyama Y,Ishii-Inagaki M,Hara K,Tsunekawa N,Harikae K,Uemura-Kamata M,Shinomura M,Zhu XB, Maeda S,Kuwahara-Otani S,Kudo A,Kawakami H,Kanai-Azuma M,Fujiwara M,Miyamae Y,Yoshida S,Seki M, Kurohmaru M,Kanai Y

Year
2012

Functional Assay (2)

Neural development

Primary neurons lacking the SNAREs vti1a and vti1b show altered neuronal development.

"450-10 was used in Sample Preparation to show the importance of vti1a or vti1b for two pathways of neurite elongation. "

Authors: Bollmann C,Schöning S,Kotschnew K,Grosse J,Heitzig N,Fischer von Mollard G

Year
2022

Species
Human

Journal of Parkinson's disease

Neuroprotective Potential of a Small Molecule RET Agonist in Cultured Dopamine Neurons and Hemiparkinsonian Rats.

"450-10 was used in In vivo experiments to evaluate the properties of BT44, a second generation RET agonist, in immortalized cells, dopamine neurons and rat 6-hydroxydopamine model of PD."

Authors: Renko JM,Mahato AK,Visnapuu T,Valkonen K,Karelson M,Voutilainen MH,Saarma M,Tuominen RK,Sidorova YA

Year
2022

Species
Human

In vitro Assay (285)

Cell reports. Medicine

The adipose-neural axis is involved in epicardial adipose tissue-related cardiac arrhythmias.

"450-10 was used in In vitro experiments to show that adipocyte-derived leptin activates sympathetic neurons and increases the release of neuropeptide Y (NPY), which in turn triggers arrhythmia in cardiomyocytes by interacting with the Y1 receptor (Y1R) and subsequently enhancing the activity of the Na+/Ca2+ exchanger (NCX) and calcium /calmodulin-dependent protein kinase II (CaMKII)."

Authors: Fan Y,Huang S,Li S,Wu B,Zhao Q,Huang L,Zheng Z,Xie X,Liu J,Huang W,Sun J,Zhu X,Zhu J,Xiang AP,Li W

Year
2024

Species
Human

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Misc (49)