Datasheet for ABIN411339

Neurotrophin 3 ELISA Kit

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Overview

Quantity:	96 tests
Target:	Neurotrophin 3 (NTF3)
Binding Specificity:	AA 139-257
Reactivity:	Mouse
Method Type:	Sandwich ELISA
Detection Range:	15.6-1000 pg/mL
Minimum Detection Limit:	15.6 pg/mL
Application:	ELISA

Product Details

Purpose:	Sandwich High Sensitivity ELISA kit for Quantitative Detection of Mouse Neurotrophin-3
Brand:	PicoKine™
Sample Type:	Cell Culture Supernatant, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Immunogen:	Expression system for standard: sf21 Immunogen sequence: Y139-T257
Specificity:	Expression system for standard: sf21 Immunogen sequence: Y139-T257
Cross-Reactivity (Details):	There is cross-reactivity with NT-4<2.5 % , and no detectable cross-reactivity with any other

Product Details

	cytokine.
Predicted Reactivity:	Bovine,Canine,Chicken,Horse,Monkey,Rabbit
Sensitivity:	<2pg/mL
Material not included:	Microplate reader in standard size. Automated plate washer. Adjustable pipettes and pipette tips. Multichannel pipettes are recommended in the condition of large amount of samples in the detection. Clean tubes and Eppendorf tubes. Washing buffer (neutral PBS or TBS). Preparation of 0.01M TBS: Add 1.2g Tris, 8.5g Nacl

Target Details

Target:	Neurotrophin 3 (NTF3)
Alternative Name:	NTF3 (NTF3 Products)
Background:	Protein Function: Seems to promote the survival of visceral and proprioceptive sensory neurons. Background: Neurotrophin-3(NT-3) is a new member of the nerve growth factor gene family, which plays an important role in the development and maintenance of the vertebrate nervous system.NT-3 and its receptor, called neurotrophic tyrosine kinase receptor type 3(Ntrk3, also called TrkC), are expressed early and throughout embryogenesis. NT-3 is one of five neurotrophin growth factors which shape the development of the nervous system by regulating neuronal survival and differentiation. NT-3 may be one of the central nervous system-derived factors that mediate neural crest(NC) cell proliferation in vivo. NT-3 has been mapped to human chromosome 12p and mouse chromosome 6. Synonyms: Neurotrophin-3,NT-3,HDNF,Nerve growth factor 2,NGF-2,Neurotrophic factor,Ntf3,Ntf-3, Full Gene Name: Neurotrophin-3 Cellular Localisation: Secreted.
Gene ID:	18205
UniProt:	P20181
Pathways:	RTK Signaling, Neurotrophin Signaling Pathway

Application Details

Application Notes:	Before using Kit, spin tubes and bring down all components to bottom of tube. Duplicate well assay was recommended for both standard and sample testing.

Application Details

Comment:	Tissue Specificity: Brain and peripheral tissues.
Plate:	Pre-coated
Protocol:	mouse Neurotrophin-3 ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from rat specific for Neurotrophin-3 has been precoated onto 96-well plates. Standards(sf21, Y139-T257) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for Neurotrophin-3 is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the mouse Neurotrophin-3 amount of sample captured in plate.
Assay Procedure:	Aliquot 0.1 mL per well of the 1000pg/mL, 500pg/mL, 250pg/mL, 125pg/mL, 62.5pg/mL, 31.2pg/mL, 15.6pg/mL mouse Neurotrophin-3 standard solutions into the precoated 96-well plate. Add 0.1 mL of the sample diluent buffer into the control well (Zero well). Add 0.1 mL of each properly diluted sample of mouse cell culture supernatants or serum to each empty well. See "Sample Dilution Guideline" above for details. It is recommended that each mouse Neurotrophin-3 standard solution and each sample be measured in duplicate.
Assay Precision:	• Sample 1: n=16, Mean(pg/ml): 88, Standard deviation: 4.84, CV(%): 5.5 • Sample 2: n=16, Mean(pg/ml): 329, Standard deviation: 19.74, CV(%): 6 • Sample 3: n=16, Mean(pg/ml): 682, Standard deviation: 30.01, CV(%): 4.4, • Sample 1: n=24, Mean(pg/ml): 113, Standard deviation: 7.12, CV(%): 6.3 • Sample 2: n=24, Mean(pg/ml): 395, Standard deviation: 28.44, CV(%): 7.2 • Sample 3: n=24, Mean(pg/ml): 753, Standard deviation: 39.16, CV(%): 5.2
Restrictions:	For Research Use only

Handling

Handling Advice:	Avoid multiple freeze-thaw cycles.
Storage:	-20 °C,4 °C
Storage Comment:	Store at 4°C for 6 months, at -20°C for 12 months. Avoid multiple freeze-thaw cycles
Expiry Date:	12 months

Product cited in:

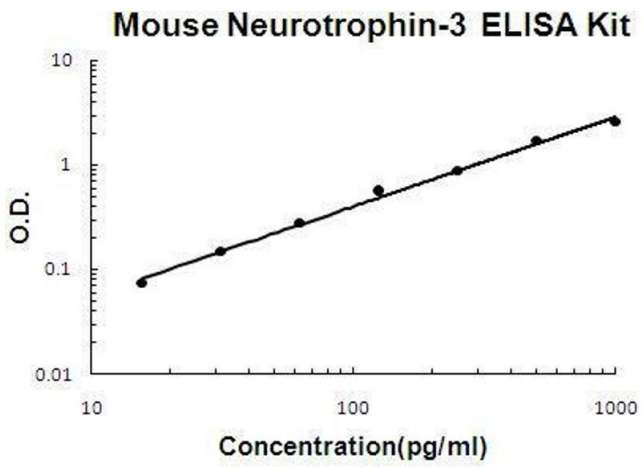
Rubiś, Wiśniowska-Smiałek, Wypasek, Rudnicka-Sosin, Hlawaty, Leśniak-Sobelga, Kostkiewicz, Podolec et al.: "12-month patterns of serum markers of collagen synthesis, transforming growth factor and connective tissue growth factor are similar in new-onset and chronic dilated cardiomyopathy in patients both ..." in: **Cytokine**, Vol. 96, pp. 217-227, (2018) (PubMed).

Xie, Liao, Yu, Guo, Yang, Ge, Chen, Chen: "Endothelial-to-mesenchymal transition in human idiopathic dilated cardiomyopathy." in: **Molecular medicine reports**, Vol. 17, Issue 1, pp. 961-969, (2018) (PubMed).

Rubiś, Wiśniowska-Śmiałek, Dziewięcka, Rudnicka-Sosin, Kozanecki, Podolec: "Prognostic value of fibrosis-related markers in dilated cardiomyopathy: A link between osteopontin and cardiovascular events." in: **Advances in medical sciences**, Vol. 63, Issue 1, pp. 160-166, (2018) (PubMed).

Rubiś, Wiśniowska-Śmialek, Wypasek, Biernacka-Fijalkowska, Rudnicka-Sosin, Dziewiecka, Faltyn, Khachatryan, Karabinowska, Kozanecki, Tomkiewicz-Pająk, Podolec: "Fibrosis of extracellular matrix is related to the duration of the disease but is unrelated to the dynamics of collagen metabolism in dilated cardiomyopathy." in: **Inflammation research : official journal of the European Histamine Research Society ... [et al.]**, Vol. 65, Issue 12, pp. 941-949, (2016) (PubMed).

Rubiś, Wiśniowska-Śmiałek, Biernacka-Fijałkowska, Rudnicka-Sosin, Wypasek, Kozanecki, Dziewięcka, Faltyn, Karabinowska, Khachatryan, Hlawaty, Leśniak-Sobelga, Kostkiewicz, Płazak, Podolec: "Left ventricular reverse remodeling is not related to biopsy-detected extracellular matrix fibrosis and serum markers of fibrosis in dilated cardiomyopathy, regardless of the definition used for LVRR." in: **Heart and vessels**, Vol. 32, Issue 6, pp. 714-725, (2016) (PubMed).



ELISA

Image 1. Mouse Neurotrophin-3 PicoKine ELISA Kit standard curve