



Rabbit Anti-Neuro D2 antibody

SL11918R

Product Name:	Neuro D2
Chinese Name:	神经Cell differentiation因子2抗体
Alias:	bHLHa1; Class A basic helix-loop-helix protein 1; class A basic helix loop helix protein 1; NDF2_HUMAN; NDR2; NDRF; Neuro-D2; NeuroD-related factor; NeuroD2; Neurogenic differentiation factor 2; NDF2_HUMAN; neuroD related factor; NeuroD2; neurogenic basic helix loop helix protein; neurogenic differentiation 2; Neurogenic differentiation factor 2; neuronal differentiation 2.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	41kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Neuro D2:121-250/382
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Members of the myogenic determination family are basic helix-loop-helix (bHLH) proteins that can be separated into two classes, both of which work together to activate DNA transcription. Class A proteins include the ubiquitously expressed E-box binding

factors, namely E2A, ITF-2 and HEB, while class B proteins, such as MyoD, myogenin and Neuro D (BETA2), are transiently expressed and exhibit a much more limited tissue distribution. Working in opposition to these positively acting factors are a specialized group of basic helix-loop-helix (bHLH) transcription factors that function as dominant negative regulators and are involved in cell lineage determination and differentiation. Neuro D2 (neurogenic differentiation 2), also known as NDRF, NEUROD2 or bHLHa1, is a 382 amino acid nuclear protein that contains one bHLH domain and functions to induce neurogenic differentiation, playing an important role in the maintenance and determination of cell fate.

Function:

Transcriptional regulator implicated in neuronal determination. Mediates calcium-dependent transcription activation by binding to E box-containing promoter. Critical factor essential for the repression of the genetic program for neuronal differentiation; prevents the formation of synaptic vesicle clustering at active zone to the presynaptic membrane in postmitotic neurons. Induces transcription of ZEB1, which in turn represses neuronal differentiation by down-regulating REST expression. Plays a role in the establishment and maturation of thalamocortical connections; involved in the segregation of thalamic afferents into distinct barrel domains within layer VI of the somatosensory cortex. Involved in the development of the cerebellar and hippocampal granular neurons, neurons in the basolateral nucleus of amygdala and the hypothalamic-pituitary axis. Associates with chromatin to the DPYSL3 E box-containing promoter

Subunit:

Interacts with TCF3, TCF4 and TCF12. Interacts with CDC20. Efficient DNA-binding and transcription activation require dimerization with another bHLH protein

Subcellular Location:

Nucleus.

Similarity:

Contains 1 basic helix-loop-helix (bHLH) domain.

SWISS:

Q15784

Gene ID:

4761

Database links:

[Entrez Gene: 4761](#) Human

[Entrez Gene: 18013](#) Mouse

[Entrez Gene: 54276](#) Rat

[Omim: 601725](#) Human

[SwissProt: Q15784](#) Human

[SwissProt: Q62414](#) Mouse

[SwissProt: Q63689](#) Rat

[Unigene: 322431](#) Human

[Unigene: 4814](#) Mouse

[Unigene: 10724](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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