

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.
Research Area	Cell biology Neurobiology Signal transduction Stem cells Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Mouse,Rat(predicted:Human,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep) WB=1:500-2000 (Paraffin sections need antigen repair)
Applications	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	41kDa
Cellular localization	The nucleus
Form	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
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed

[PubMed](#)

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

Product Detail

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

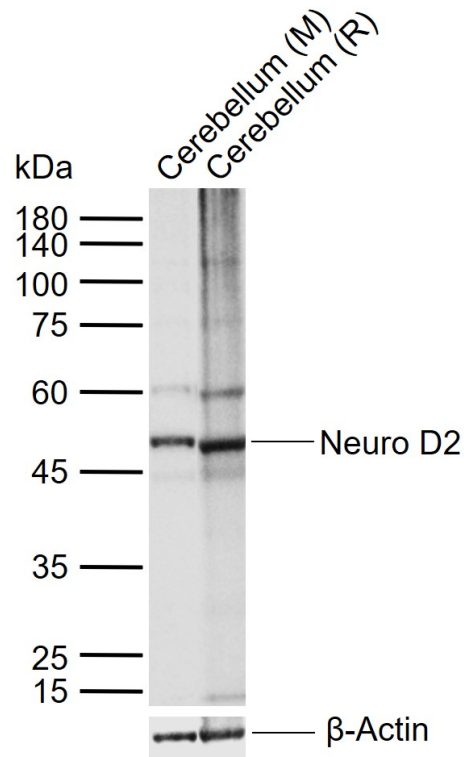
[SwissProt: Q63689](#) Rat

[Unigene: 322431](#) Human

[Unigene: 4814](#) Mouse

[Unigene: 10724](#) Rat

Product Picture



Sample:

Lane 1: Mouse Cerebellum tissue lysates

Lane 2: Rat Cerebellum tissue lysates

Primary: Anti-Neuro D2 (SL11918R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 41 kDa

Observed band size: 48 kDa