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Rabbit Polyclonal REST / NRSF antibody FITC

Catalog Number: REST-FITC

Lot Number:

General Information

Product	REST / NRSF Antibody FITC
Description	FITC-Conjugated RE1-silencing transcription factor Antibody
Accession #	Uniprot: Q13127
Verified Applications	ELISA, IP, WB
Species Cross Reactivity	Human, Mouse, Rat
Host	Rabbit
Immunogen	Synthetic peptide taken within amino acid region 1000-1097 on human REST protein.
Alternative Nomenclature	Neural Restrictive Silencer Factor antibody, Repressor binding to the X2 box antibody, X2 box repressor antibody, XBR antibody

Physical Properties

Quantity	100 µg
Volume	200 µl
Form	FITC-Conjugated Immunoglobulins
Immunoglobulin & Concentration	0.52-0.54 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20ºC for long term storage.

Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Immunoprecipitation	1:200
Western Blot	1:500

Related Products	Catalog #
Affinity Purified	REST-101AP
BIOTIN-Conjugated	REST-BIOTIN
Antigenic Blocking Peptide	P-REST
Western Blot Positive Control	PC-REST

Overview:

The mammalian neurogenesis involved a complex interaction of positive and negative regulators which can transform the neuronal stem cells into mature neurons. There are number of positive neuronal factors affecting the development of neurons have been identified and their genes are cloned through analyses of mammalian and non-mammalian embryogenesis, regeneration, repairs and in disease. The transcription factor RE1-silencing transcription factor (REST)/neuron-restrictive silencer factor (NRSF) was identified to be the first global neuronal repressor and potentially one of the critical regulators of neurogenesis (1). REST is a DNA-binding protein that silences the transcription of most neuronal differentiation genes by biding to a 23bp consensus sequences known as RE1 binding site/neuron-restrictive silencer element or RE1/NRSE. The RE1 binding regions is upstream form the promoter-enhancer region of the neuronal regulatory genes (2).

REST is well characterized as a transcription factor that represses neuron-specific genes during embryogenesis. REST is switched on during middle- and late-adulthood, helping to protect neurons of the hippocampus and cortex from oxidative stress and the aggregated and misfolded proteins characteristic of Alzheimer's and other neurodegenerative diseases. REST is expressed at high levels in most if not all neuronal cells including neuroblasts. The presence of REST in mature neurons in adults suggest a complex role for REST depending on the cellular and physiological environment. The action of REST requires interaction of several other factors such as CoREST, mSin3A and HDAC (3). Lenti virus expression of REST in NT2 cells alone caused expression of multiple neuronal differentiation genes (4).

The REST-selective antibodies were generated against peptide taken form the C-terminal end of the REST sequence. The REST antibodies are affinity purified on immobilized antigen based affinity chromatography. REST affinity purified antibodies are stabilized in antibody stabilization buffer for long-term storage. Antibodies can be conjugated to fluorophores and secondary enzymes (i.e. horseradish peroxidase and alkaline phosphatase) upon request at nominal cost. Antigenic blocking peptide and western blot positive control in ready-to-use buffer for REST are available. FabGennix has made a number of new antibodies in signal transduction research, for a complete listing please visit www.FabGennix.com.

References:

1. Schoenherr C.J. and Anderson,D.J. (1995) Science, 267, 1360–1363.
2. Schoenherr C.J., Paquette,A.J. and Anderson,D.J. (1996) Proc. Natl Acad. Sci. USA, 93, 9881–9886.
3. Grimes J.A., Nielsen,S.J., Battaglioli,E., Miska,E.A., Speh,J.C., Berry,D.L., Atouf,F., Holdener,B.C., Mandel,G. and Kouzarides,T. (2000) J. Biol. Chem., 31, 9461–9467.
4. Anand Immaneni, Patrick Lawinger, [...], and Sadhan Majumder., REST-VP16 activates multiple neuronal differentiation genes in human NT2 cells

For users who may require large amounts of the products listed above, please inquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.