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TBR1 Rabbit pAb

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Catalog # AP54563

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	Q16650
Predicted	Rat, Pig, Dog, Human, Mouse, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	74053
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human TBR1
Epitope Specificity	35-130/682
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Nuclea
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	A novel murine and human gene, TBR-1, encodes a putative transcription factor related to the Brachyrury (T) gene that is expressed only in postmitotic cells. T-brain-1 (TBR-1) mRNA is largely restricted to the cerebral cortex, where, during embryogenesis, it defines different regions that give rise to the palecortex, limbic cortex and neocortex (1-3). TBR-1, Pax-6 and Emx-1 are expressed in the mouse and chicken pallium. The pallio-subpallial boundary lies at the interface between the TBR-1 and Dlx-2 expression domains. Chicken genes homolgous to these mouse genes are expressed in topologically comparable patterns during development, suggesting that mouse and chicken may have similar histogenetic specification processes and field homologies (4). CASK/LIN-2, a membrane-associated guanylate kinase, is required for EGFR localization and signaling. In adult rat brain, CASK is concentrated at neuronal synapses and binds to the cell-surface proteins. CASK can interact with TBR-1, which is involved in forebrain development. CASK enters into the nucleus and binds to a specific DNA sequence (the T-element) in a complex with TBR-1. Thus, CASK acts as a coactivator of TBR-1 to induce transcription of T-element containing genes, including reelin (5).

Additional Information

Gene ID	10716
Other Names	T-box brain protein 1, T-brain-1, TBR-1, TES-56, TBR1
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000

Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	TBR1
Function	Transcriptional repressor involved in multiple aspects of cortical development, including neuronal migration, laminar and areal identity, and axonal projection (PubMed:25232744, PubMed:30250039). As transcriptional repressor of FEZF2, it blocks the formation of the corticospinal (CS) tract from layer 6 projection neurons, thereby restricting the origin of CS axons specifically to layer 5 neurons (By similarity).
Cellular Location	Nucleus
Tissue Location	Brain.

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.