

#32518  
Store at +4C**TBR1 (D6C6X) Rabbit mAb (Alexa Fluor®  
488 Conjugate)**
**Orders:** 877-616-CELL (2355)  
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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
IF-F	H M R	Endogenous	Rabbit IgG	#Q16650	10716

**Product Usage Information****Application**

Immunofluorescence (Frozen)

**Dilution**

1:50

**Storage**

Supplied in PBS (pH 7.2), less than 0.1% sodium azide and 2 mg/ml BSA. Store at 4°C. Do not aliquot the antibody. Protect from light. Do not freeze.

**Specificity/Sensitivity**

TBR1 (D6C6X) Rabbit mAb (Alexa Fluor® 488 Conjugate) recognizes endogenous levels of total TBR1 protein. Low levels of nuclear staining of unknown specificity have been observed in mouse small intestine, spleen, and pancreas.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro415 of human TBR1 protein.

**Description**

This Cell Signaling Technology antibody is conjugated to Alexa Fluor® 488 fluorescent dye and tested in-house for direct immunofluorescence analysis in mouse tissue. This antibody is expected to exhibit the same species cross-reactivity as the unconjugated TBR1 (D6C6X) Rabbit mAb #49661.

**Background**

T-box, brain, 1 (TBR1) is a transcription factor important in vertebrate embryo development. As a member of T-Box family of transcription factors, TBR1 is expressed in postmitotic glutamatergic projection neurons (1). During cortical neurogenesis, sequential expression of transcription factors Pax6, TBR2, and TBR1 regulates discrete steps in projection neuron differentiation (2). TBR1 is enriched in layer 6 of the developing cortex. In the absence of TBR1, *TBR1* mutants exhibit profound defects in frontal cortex and layer 6 differentiation, suggesting that TBR1 regulates regional and laminar identity of postmitotic cortical neurons (3). Therefore, TBR1 expression can be used as a marker for postmitotic glutamatergic neurons and cortical laminar specificity.

**Background References**

1. Hevner, R.F. et al. (2001) *Neuron* 29, 353-66.
2. Englund, C. et al. (2005) *J Neurosci* 25, 247-51.
3. Bedogni, F. et al. (2010) *Proc Natl Acad Sci U S A* 107, 13129-34.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Applications Key**

IF-F: Immunofluorescence (Frozen)

**Cross-Reactivity Key**

H: Human M: Mouse R: Rat

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