Revision 4

Store at -20C

#81694

Brachyury (D2Z3J) Rabbit mAb

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP, IF-IC, FC-FP	H	Endogenous	54	Rabbit IgG	#O15178	6862

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100
Immunofluorescence (Immunocytochemistry)	1:1600
Flow Cytometry (Fixed/Permeabilized)	1:400 - 1:1600

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Brachyury (D2Z3J) Rabbit mAb recognizes endogenous levels of total Brachyury protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro256 of human Brachyury protein.

Background

Brachyury protein, encoded by the *T* gene, is a transcription factor that is vital for the formation of posterior mesoderm and axial development during vertebrate embryogenesis (1). In the mouse, brachyury is necessary for mesodermal morphogenetic cell movements during gastrulation. Brachyury mutant mice die *in utero* and display deficient mesoderm formation including an abnormal notochord, missing posterior somites, and a reduced allantois (2). Human brachyury is expressed in the notochord, as well as in chordoma tumors that occur along the spine, making it a good marker for notochord and notochord-derived tumors (3,4). A common polymorphism in the human *T* gene has also been shown to be associated with development of the multifactorial neural tube defect, spina bifida (5,6).

Background References

1. Edwards, Y.H. et al. (1996) *Genome Res* 6, 226-33.
2. Wilson, V. et al. (1995) *Development* 121, 877-86.
3. Vujovic, S. et al. (2006) *J Pathol* 209, 157-65.
4. Yang, X.R. et al. (2009) *Nat Genet* 41, 1176-8.
5. Morrison, K. et al. (1996) *Hum Mol Genet* 5, 669-74.
6. Jensen, L.E. et al. (2004) *Hum Genet* 115, 475-82.

Species Reactivity

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

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human

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