

Product datasheet for **TA301024**

NODAL Rabbit Monoclonal Antibody [Clone ID: EP2058Y]

Product data:

Product Type:	Primary Antibodies
Clone Name:	EP2058Y
Applications:	WB
Recommended Dilution:	FC: 1:60; WB: 1:2000
Reactivity:	Mouse, Human (Does not react with: Rat)
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide corresponding to residues near the C-terminus of human Nodal was used as an immunogen. This antibody detects Pro-Nodal and Nodal.
Formulation:	PBS 49%,Sodium azide 0.01%,Glycerol 50%,BSA 0.05%
Purification:	Tissue culture supernatant
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	nodal growth differentiation factor
Database Link:	NP_060525 Entrez Gene 18119 Mouse Entrez Gene 294503 Rat Entrez Gene 4838 Human Q96S42



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Background:

Vertebrates have characteristic and conserved left-right (L-R) visceral asymmetries, for example the left-sided heart. In humans, alterations of L-R development can have serious clinical implications, including cardiac defects. Results support a key role for nodal and nodal-related genes in interpreting and relaying L-R patterning information in vertebrates (1). Left-sided expression of Nodal in the lateral plate mesoderm is a conserved feature necessary for the establishment of normal left-right asymmetry during vertebrate embryogenesis. By using gain- and loss-of-function experiments in zebrafish and mouse, it has been shown that the activity of the Notch pathway is necessary and sufficient for Nodal expression around the node, and for proper left-right determination (2). During gastrulation, the three germ layers of the embryo are formed and organized along the anterior-posterior body axis. In the mouse, gastrulation involves the delamination of ectodermal cells through the primitive streak and their differentiation into mesoderm. The nodal signaling molecule is essential for mesoderm formation and subsequent organization of axial structures in early mouse development (3).

Synonyms:

HTX5

Note:

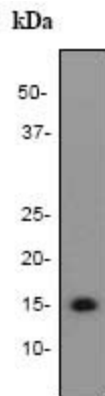
Is unsuitable for IHC-P or IP.

Protein Families:

Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Induced pluripotent stem cells, Secreted Protein, Stem cell relevant signaling - TGFb/BMP signaling pathway

Protein Pathways:

TGF-beta signaling pathway

Product images:

Western blot - Nodal antibody [EP2058Y]; Anti-Nodal antibody [EP2058Y] at 1/2000 dilution + Recombinant nodal protein at 10ng, Secondary.HRP conjugated goat anti-rabbit at 1/2000 dilution. Predicted band size : 39 kDa. Observed band size : 15 kDa.