
Monoclonal Antibody To Rat BMP-6

Bone Morphogenic Protein 6

Monoclonal antibody morph-6.1 recognizes BMP-6, a member of the TGF- β superfamily of cytokines regulating homeotic gene expression, embryonic development and neurogenesis.

Product number: T-3206

Clone: morph-6.1

Lot: 04PO1209

TECHNICAL AND ANALYTICAL CHARACTERISTICS:

Host species, subclass: Mouse IgG1

Quantity: 100 μ g

Format: Affinity purified, lyophilized

Reconstitute by adding 0.5ml distilled water. This stock solution contains 0.2mg/ml IgG, phosphate buffered saline pH 7.2 (PBS), 5mg/ml bovine serum albumin (BSA) as a stabilizer and 0.05% Kathon as a preservative.

Stability: Original vial: 1 year at 4° - 8°C

Stock solution or aliquots thereof: 1 year at -20°C. Avoid repeated thawing and freezing.

Applications: Tested for immunohistochemistry (IHC).

Approximate working dilution for IHC:

Frozen sections: 10 μ g/ml (1:20)

Paraffin sections: 10 μ g/ml (1:20) microwave pretreatment for antigen retrieval is recommended.

Optimal dilutions should be determined by the end user.

Suggested positive control: Rat brain.

Please see www.bma.ch for protocols and general information.

Immunogen: Aminoterminal synthetic peptide 1-29.

Antigen, epitope: Bone morphogenic protein 6. Pre-incubation of morph-6.1 with amino-terminal peptide 1-29 of BMP-6 inhibits binding of the antibody to tissue sections. Pre-incubation with other amino-terminal synthetic peptides of human BMP-7, BMP-4, BMP-3 and BMP-2 as well as an irrelevant peptide does not inhibit specific tissue staining.

Antigen distribution:

Tissue sections: Positive staining can be observed in embryonic and adult central nervous system. Rat radial glial cells of the developing central nervous system from E11 to E19. In rat peripheral nerves a selective intracellular immunoreactivity can be found in perinuclear region of most Schwann cells which form the myelin sheath. However, some Schwann cells were negative for morph-6.1. BMP-6 can also be found in a variety of other tissues and cell types, notably keratinizing epithelial cells. Smooth muscle cells, characterized by Desmin positivity, were positively stained in normal tissues and in atherosclerotic plaques. Macrophages (CD68+) and endothelial cells were negative with morph-6.1.

Specificity:

Rat: Bone morphogenic Protein-6 (BMP-6)
Synonyms are: vgr-1 (vegetal related) or DVR-6 (decapentaplegic vegetal related).

Other species: phylogenetically highly conserved (human positive)

Selected references

H.J. SCHLUESSENER & R. Meyermann: Expression of BMP-6, a TGF-beta Related Morphogenetic Cytokine, in Rat Radial Glial Cells. *Glia* 12:161-164 (1994)

H.J. SCHLUESSENER & R. Meyermann & S. Jung: Immunolocalization of vgr (BMP-6, DVR-6), a TGF-beta Related Cytokine, to Schwann Cells of the Rat Peripheral Nervous System: Expression Patterns Are Not Modulated by Autoimmune Disease. *Glia* 13:75-78 (1995)

H.J. SCHLUESSENER & R. Meyermann
Immunolocalization of BMP-6, a novel TGF-beta-related cytokine, in normal and atherosclerotic smooth muscle cells, *Atherosclerosis* 113: 153-156 (1995)

For *in vitro* research only. Caution: this product contains sodium azide, a poisonous and hazardous substance.