

## MANF Antibody

*MANF (CT): Mesencephalic astrocyte-derived neurotrophic factor, arginine-rich mutated in early stage tumor, ARMET, ARP*

**CATALOG No.:4347**

### BACKGROUND:

MANF, also known as ARMET, was initially identified as a protein containing an arginine-rich region that was highly mutated in a variety of tumors (1,2). More recently it was identified as a mesencephalic astrocyte-derived neurotrophic factor with selectivity for dopaminergic neurons, similar to glial cell line-derived neurotrophic factor (GDNF) and CDNF (3,4). In rat brain slices, MANF enhanced nigral gamma-aminobutyric acid release (5). Like GDNF and CDNF, MANF has selective neuroprotective activity for dopaminergic neurons suggesting that it may be indicated for the treatment of Parkinson's disease (3). Expression of MANF has also been shown to be induced during ER stress, suggesting that it may play a role in protein quality control during ER stress (6). This antibody does not cross-react with CDNF.

### SOURCE:

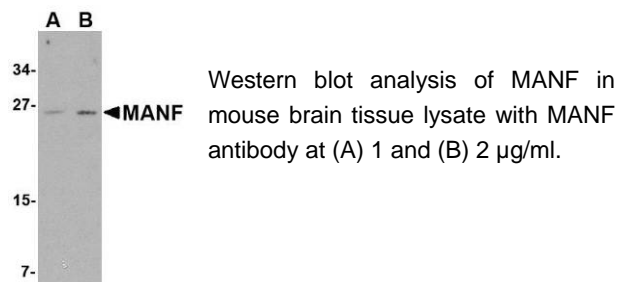
Rabbit polyclonal MANF antibody was raised against a 12 amino acid peptide from near the carboxy terminus of human MANF (GenBank accession no. P55145).

### APPLICATIONS:

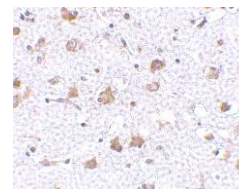
MANF antibody can be used for detection of MANF by Western blot at 1 – 2 µg/ml. (Optimal dilution should be determined by user.) Mouse brain tissue lysate can be used as positive control. MANF antibody is human, mouse and rat reactive. **For research use only.**

### STORAGE:

MANF antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Immunohistochemistry of MANF in human brain tissue with MANF antibody at 2.5 µg/ml.



### RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4347P**.  
Mouse Brain Tissue Lysate, Catalog No. **1403**.  
MANF Antibody (NT), Catalog No. **4349**.  
CDNF Antibody (CT), Catalog No. **4343**.  
CDNF Antibody (NT), Catalog No. **4345**.

### REFERENCES:

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2. Shridhar R, Shridhar V, Rivard S, et al. Mutations in the arginine-rich protein gene, in lung, breast, and prostate cancers, and in squamous cell carcinoma of the head and neck. *Cancer Res.* 1996; 56:5576-8.
3. Petrova P, Raibekas A, Pevsner J, et al. MANF: a new mesencephalic, astrocyte-derived neurotrophic factor with selectivity for dopaminergic neurons. *J. Mol. Neurosci.* 2003; 20:173-88.
4. Lindholm P, Voutilainen MH, Lauren J, et al. Novel neurotrophic factor CDNF protects and rescues midbrain dopamine neurons in vivo. *Nature* 2007; 448:73-7.
5. Zhou C, Xiou C, Commissiong JW, et al. Mesencephalic astrocyte-derived neurotrophic factor enhances nigral gamma-aminobutyric acid release. *Neuroreport* 2006; 17:293-7.
6. Mizobuchi N, Hoseki J, Kubota H, et al. ARMET is a soluble ER protein induced by the unfolded protein response via ERSE-II element. *Cell Struct. Funct.* 2007; 32:41-50.

(08-01D)