Anti-BDNF Antibody

ER130915

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IF-Cell, IHC-P
Molecular Wt:	Predicted band size: 28 kDa

Description: Brain-derived neurotrophic factor, also known as BDNF, is a member of the "neurotrophin" family of growth factors, which are related to the canonical "Nerve Growth Factor", NGF. BDNF acts on certain neurons of the central nervous system and the peripheral nervous system, helping to support the survival of existing neurons, and encourage the growth and differentiation of new neurons and synapses. BDNF is actually found in a range of tissue and cell types, not just in the brain. It is also expressed in the retina, the central nervous system, motor neurons, the kidneys, and the prostate. Various studies have shown possible links between BDNF and conditions such as depression, bipolar disorder,schizophrenia, obsessive-compulsive disorder, Alzheimer's disease, Huntington's disease, Rett syndrome, and dementia, as well as anorexia nervosa and bulimia nervosa.

Immunogen: Synthetic peptide within N-terminal human BDNF.

Positive control: A172 cell lysates, SHG-44 cell lysates, mouse heart tissue lysates, mouse brain tissue lysates, SHG-44, human lung tissue, mouse lung tissue, mouse testis tissue, mouse heart tissue, rat spinal cord tissue lysates

Subcellular location: Secreted.

Database links: SwissProt: P23560 Human | P21237 Mouse | P23363 Rat

Recommended Dilutions:

WB	1:500
IF-Cell	1:200
IHC-P	1:200

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃ or -80℃. Avoid repeated freeze / thaw cycles.

Purity: Immunogen affinity purified.

Images

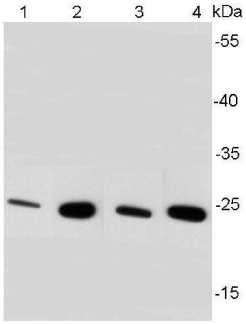

Fig1: Western blot analysis of BDNF on different cell lysates using anti-BDNF antibody at 1/500 dilution.
Positive control:
Lane 1: A172 cell lysates
Lane 2: SHG-44 cell lysates
Lane 3: Mouse heart tissue lysates
Lane 4: Mouse brain tissue lysates

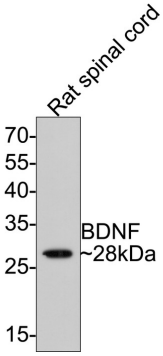

Fig2: Western blot analysis of BDNF on rat spinal cord tissue lysates with Rabbit anti-BDNF antibody (ER130915) at 1/500 dilution.

Lysates/proteins at 20 µg/Lane.

Predicted band size: 28 kDa
Observed band size: 28 kDa

Exposure time: 2 minutes;

12% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ER130915) at 1/500 dilution was used in 5% NFDM/TBST at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:300,000 dilution was used for 1 hour at room temperature.

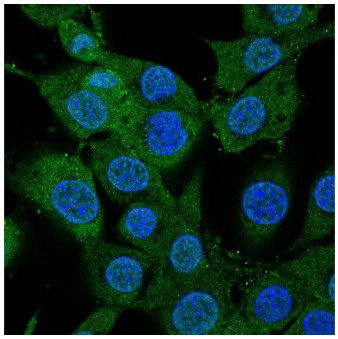

Fig3: ICC staining of BNDF in SHG-44 cells (green). The nuclear counter stain is DAPI (blue). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

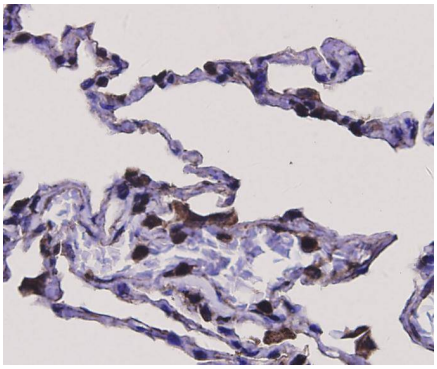

Fig4: Immunohistochemical analysis of paraffin-embedded human lung tissue with Rabbit anti-BDNF antibody (ER130915) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER130915) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

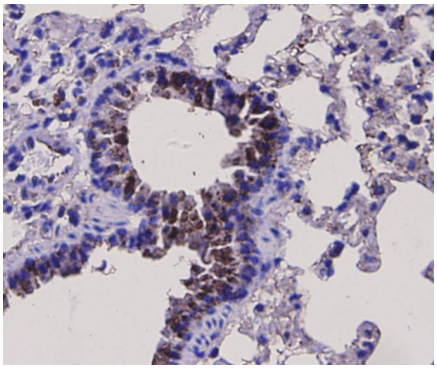

Fig5: Immunohistochemical analysis of paraffin-embedded mouse lung tissue with Rabbit anti-BDNF antibody (ER130915) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER130915) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

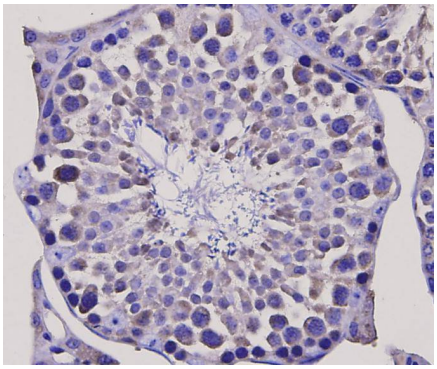

Fig6: Immunohistochemical analysis of paraffin-embedded mouse testis tissue with Rabbit anti-BDNF antibody (ER130915) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER130915) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

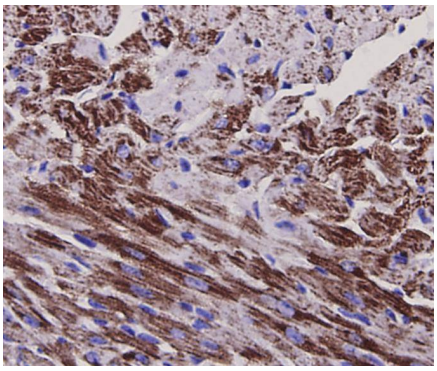

Fig7: Immunohistochemical analysis of paraffin-embedded mouse heart tissue with Rabbit anti-BDNF antibody (ER130915) at 1/50 dilution.

The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 20 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ER130915) at 1/50 dilution for 1 hour at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. "Met66 in the brain-derived neurotrophic factor (BDNF) precursor is associated with anorexia nervosa restrictive type." Ribases M., Gratacos M., Armengol L., de Cid R., Badia A., Jimenez L., Solano R., Vallejo J., Fernandez F., Estivill X. Mol. Psychiatry 8:745-751(2003)
2. "Sequence variants of the brain-derived neurotrophic factor (BDNF) gene are strongly associated with obsessive-compulsive disorder." Hall D., Dhilla A., Charalambous A., Gogos J.A., Karayiorgou M. Am. J. Hum. Genet. 73:370-376(2003)
3. "Brain-derived neurotrophic factor and obesity in the WAGR syndrome." Han J.C., Liu Q.-R., Jones M., Levinn R.L., Menzie C.M., Jefferson-George K.S., Adler-Wailes D.C., Sanford E.L., Lacbawan F.L., Uhl G.R., Rennert O.M., Yanovski J.A. N. Engl. J. Med. 359:918-927(2008)