Product Datasheet

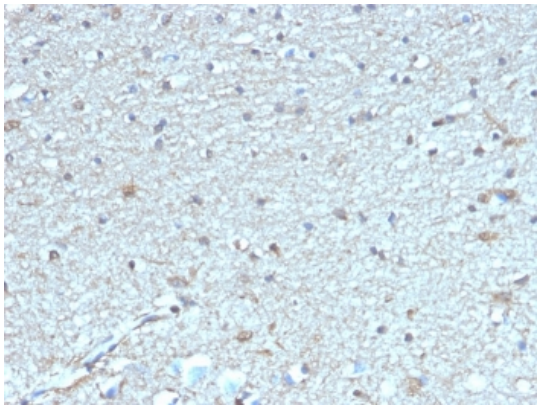
LEPR Antibody / Leptin Receptor / Ob-R (orb2635018)

Description	Although there is substantial evidence that body weight is physiologically regulated, the molecular basis of obesity is unknown. Five single-gene mutations in mice that result in an obese phenotype have been identified. The first such recessive obesity mutation, the obese mutation (Ob), was identified in 1950. Mutation of Ob results in profound obesity and type II diabetes as part of a syndrome that resembles morbid obesity in humans. It has been postulated that the Ob gene product may function as a component of a signaling pathway in adipose tissue that functions to regulate body fat depot size. The cloning and sequence analysis of the mouse Ob gene and its human homolog has recently been described. Ob encodes an adipose tissue-specific mRNA with a highly conserved 167 amino acid open reading frame. The predicted amino acid sequence is 84% identical between human and mouse and has the features of a secreted protein. A nonsense mutation in codon 105 has been found in the original congenic C57BL/6J Ob/Ob mouse strain. The Ob gene encodes the protein leptin. The leptin receptor, designated Ob-R, has been shown to be a single membrane-spanning receptor that most resembles the gp130 signal transducing component of the IL-6, G-CSF and LIF receptor. Ob-R mRNA is expressed in the choroid plexus and hypothalamus.
Species/Host	Mouse
Reactivity	Human
Conjugation	Unconjugated
Tested Applications	IHC-P
Immunogen	A portion of amino acids 335-425 was used as the immunogen for the LEPR antibody.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Note	For research use only

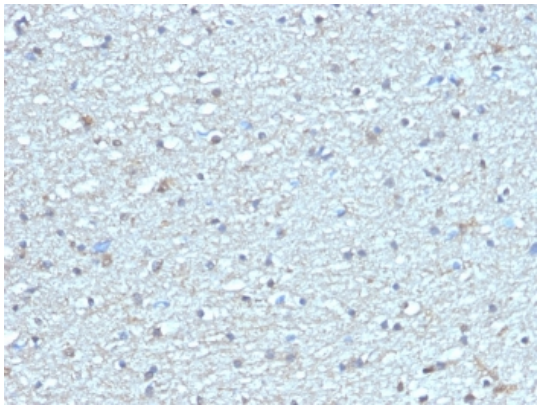
Biorbyt Ltd.
7 Signet Court, Swann's Road,
Cambridge, CB5 8LA, United Kingdom
Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0) 1223 859-353 | Fax: +1 (415) 651-8558

Biorbyt LLC.
68 TW Alexander Drive,
Durham, NC, 27713, United States
Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

Application notes	Optimal dilution of the LEPR antibody should be determined by the researcher.
Formula	1 mg/ml in 1X PBS; BSA free, sodium azide free
Isotype	Mouse IgG2b, kappa
Clonality	Monoclonal
Clone Number	LEPR/4304
Uniprot ID	**P48357**
Hazard Information	This LEPR antibody is available for research use only.
Dilution Range	Immunohistochemistry (FFPE): 1-2ug/ml
Expiration Date	12 months from date of receipt.



IHC staining of FFPE human brain tissue with LEPR antibody (clone LEPR/4304). HIER: boil tissue sections in pH9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



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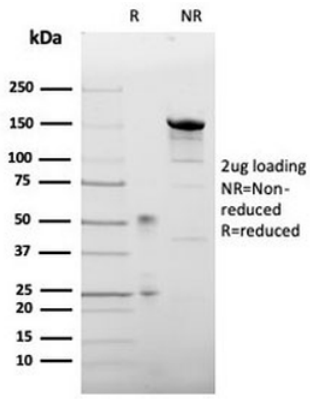
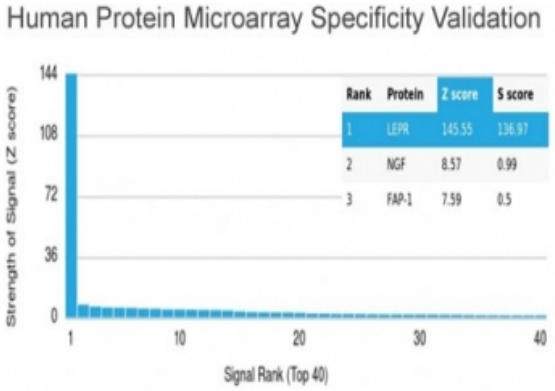


SDS-PAGE analysis of purified, BSA-free LEPR antibody (clone LEPR/4304) as confirmation of integrity and purity.



Analysis of HuProt (TM) microarray containing more than 19000 full-length human proteins using LEPR antibody (clone LEPR/4304). These results demonstrate the foremost specificity of the LEPR/4304 mAb. Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt (TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt (TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.

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