

## Leptin Receptor (LEPR) / Ob-R / CD295 Antibody

Mouse Monoclonal Antibody [Clone LEPR/4545]

Catalog No	Format	Size
3953-MSM5-P0	Purified Ab with BSA and Azide at 200ug/ml	20 ug
3953-MSM5-P1	Purified Ab with BSA and Azide at 200ug/ml	100 ug
3953-MSM5-P1ABX	Purified Ab WITHOUT BSA and Azide at 1.0mg/ml	100 ug

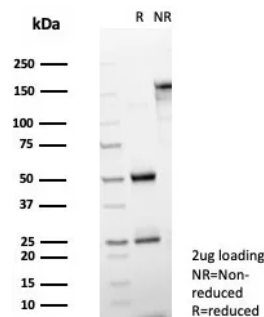
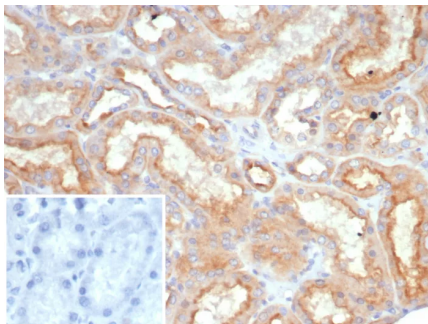
Applications	Tested Dillution	Note
Immunohistochemistry (IHC)	1-2ug/ml	30 min at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95°C followed by cooling at RT for 20 minutes

### Product Details

<b>Clone</b>	LEPR/4545
<b>Gene Name</b>	LEPR
<b>Immunogen</b>	Recombinant fragment (around aa335-425) of human LEPR protein (exact sequence is proprietary)
<b>Host</b>	Mouse
<b>Clonality</b>	Monoclonal
<b>Isotype / Light Chain</b>	IgG2b / Kappa
<b>Mol. Weight of Antigen</b>	100kDa / 125kDa (short / long form)
<b>Cellular Localization</b>	Secreted. Cell Surface.
<b>Species Reactivity</b>	Human
<b>Positive Control</b>	HepG2 or HeLa cells. Human heart small intestine or fetal liver.

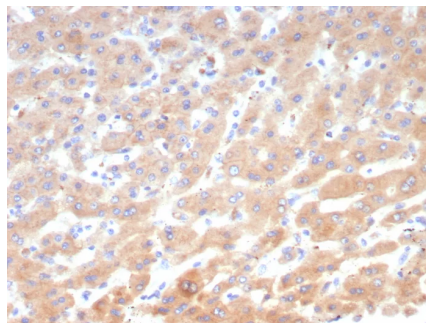
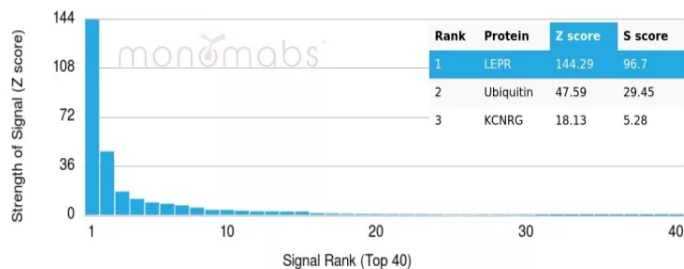
\*Optimal dilution for a specific application should be determined.

### Product Images for Leptin Receptor (LEPR) / Ob-R / CD295 Antibody



Formalin-fixed, paraffin-embedded human kidney stained with Leptin Receptor Mouse Monoclonal Antibody (LEPR/4545). Inset: PBS instead of primary antibody; secondary only negative control.

SDS-PAGE Analysis of Purified Leptin Receptor Mouse Monoclonal Antibody (LEPR/4545). Confirmation of Purity and Integrity of Antibody.



Formalin-fixed, paraffin-embedded human hepatocellular carcinoma stained with Leptin Receptor Mouse Monoclonal Antibody (LEPR/4545). HIER: Tris/EDTA, pH9.0, 45min. 2: HRP-polymer, 30min. DAB, 5min.

Analysis of Protein Array containing more than 19,000 full-length human proteins using Monospecific Mouse Monoclonal Antibody to Leptin Receptor (LEPR/4545). Z- and S-Score: The Z-score represents the strength of a signal that a monoclonal antibody (MAb) (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt™ array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt™ are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a MAb to its intended target. A MAb is considered to be specific to its intended target, if the MAb has an S-score of at least 2.5. For example, if a MAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that MAb to protein X is equal to 29.

### Specificity & Comments

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.

### Limitations and Warranty

This antibody is available for research use only and is not approved for use in diagnosis. There are no warranties, expressed or implied, which extend beyond this description. Company is not liable for any personal injury or economic loss resulting from this product.

### Supplied As

200ug/ml of Ab purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0mg/ml.

### Storage and Stability

Antibody with azide - store at 2 to 8°C. Antibody without azide - store at -20 to -80°C. Antibody is stable for 24 months. Non-hazardous. No MSDS required.

### Research Areas

Cardiovascular, Signal Transduction