Revision 1

Store at -20C

#14804

# LSR (D3E3N) XP® Rabbit mAb

Cell Signaling TECHNOLOGY®

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**For Research Use Only. Not for Use in Diagnostic Procedures.**

| Applications: | Reactivity: | Sensitivity: | MW (kDa): | Source/Isotype: | UniProt ID: | Entrez-Gene Id: |
|---|---|---|---|---|---|---|
| W, IP, IHC-P | H Mk | Endogenous | 65 | Rabbit IgG | #Q86X29 | 51599 |

## Product Usage Information

| Application | Dilution |
|---|---|
| Western Blotting | 1:1000 |
| Immunoprecipitation | 1:50 |
| Immunohistochemistry (Paraffin) | 1:400 |

## Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

## Specificity/Sensitivity

LSR (D3E3N) XP® Rabbit mAb recognizes endogenous levels of total LSR protein.

## Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly449 of human LSR protein.

## Background

The lipolysis-stimulated lipoprotein receptor (LSR, LISCH) is an immunoglobulin superfamily member and single pass transmembrane protein that binds the apolipoprotein B (ApoB) and apolipoprotein E (ApoE) lipoproteins (1). LSR is responsible for the cellular uptake of triacylglyceride-rich lipoproteins and supports lipid distribution between the liver and peripheral tissues (1,2). The LSR protein is expressed at the cell membrane as a heterodimer consisting of α and β subunits, which are produced as alternative splice variants from a single gene (3). Research studies suggest that LSR acts as the host cell surface receptor for multiple *Clostridium* toxins (4) and participates in the formation of tricellular tight junctions in epithelial cells (5). Additional studies demonstrate that LSR expression is up-regulated in several cancer types, including breast, bladder, and colorectal cancer, which could lead to pro-tumorigenic changes in metabolism (6-8).

## Background References

1. Bihain, B.E. and Yen, F.T. (1992) *Biochemistry* 31, 4628-36.
2. Yen, F.T. et al. (1994) *Biochemistry* 33, 1172-80.
3. Yen, F.T. et al. (1999) *J Biol Chem* 274, 13390-8.
4. Papatheodorou, P. et al. (2012) *Infect Immun* 80, 1418-23.
5. Masuda, S. et al. (2011) *J Cell Sci* 124, 548-55.
6. García, J.M. et al. (2007) *Clin Cancer Res* 13, 6351-8.
7. Herbsleb, M. et al. (2008) *BMC Med Genomics* 1, 31.
8. Reaves, D.K. et al. (2014) *PLoS One* 9, e91747.

## Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

## Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

## Applications Key

**W:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)

## Cross-Reactivity Key

**H:** Human **Mk:** Monkey

## Trademarks and Patents



## Limited Uses

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