

# EULIR (D-15): sc-67562

## BACKGROUND

EULIR (E3 ubiquitin-protein ligase for inhibin receptor), also known as HECTD1, functions as an E3 ubiquitin ligase. As such, EULIR is a major component of the ubiquitin-proteasome system and plays a role in determining the specificity of ubiquitin conjugation. It is responsible for transferring ubiquitin to targeted substrates from an E2 ubiquitin-conjugating enzyme through the intermediate formation of a thiol ester with ubiquitin. Similar to a number of other E3 ubiquitin ligases, EULIR contains an N-terminal ankyrin repeat domain, a mind bomb (mib) domain and a C-terminal HECT (homologous to E6-AP C-terminus) domain. The HECT domain is responsible for the ubiquitin ligase activity, catalyzing polyubiquitination. EULIR is ubiquitously expressed throughout early development and is important for the complete and proper closure of the neural tube. Mutations in the gene encoding EULIR can result in neural tube defects.

## REFERENCES

1. Wang, M. and Pickart, C.M. 2005. Different HECT domain ubiquitin ligases employ distinct mechanisms of polyubiquitin chain synthesis. *EMBO J.* 24: 4324-4333.
2. Li, W., Chanda, S.K., Micik, I. and Joazeiro, C.A. 2005. Methods for the functional genomic analysis of ubiquitin ligases. *Methods Enzymol.* 398: 280-291.
3. Kim, M., Lee, S., Yang, S.K., Song, K. and Lee, I. 2006. Differential expression in histologically normal crypts of ulcerative colitis suggests primary crypt disorder. *Oncol. Rep.* 16: 663-670.
4. Kee, Y. and Huijbrechtse, J.M. 2007. Regulation of catalytic activities of HECT ubiquitin ligases. *Biochem. Biophys. Res. Commun.* 354: 329-333.
5. Brooks, W.S., Banerjee, S. and Crawford, D.F. 2007. G2E3 is a nucleocytoplasmic shuttling protein with DNA damage responsive localization. *Exp. Cell Res.* 313: 665-676.
6. Zohn, I.E., Anderson, K.V. and Niswander, L. 2007. The HECTD1 ubiquitin ligase is required for development of the head mesenchyme and neural tube closure. *Dev. Biol.* 306: 208-221.
7. Rasooly, R., Kelley, D.S., Greg, J. and Mackey, B.E. 2007. Dietary *trans* 10, *cis* 12-conjugated linoleic acid reduces the expression of fatty acid oxidation and drug detoxification enzymes in mouse liver. *Br. J. Nutr.* 97: 58-66.
8. Kozlov, G., Nguyen, L., Lin, T., De Crescenzo, G., Park, M. and Gehring, K. 2007. Structural basis of ubiquitin recognition by the UBA domain of the ubiquitin ligase EDD. *J. Biol. Chem.* 282: 35787-35795.
9. Bergström, A., Jayatissa, M.N., Thykjaer, T. and Wiborg, O. 2007. Molecular pathways associated with stress resilience and drug resistance in the chronic mild stress rat model of depression: a gene expression study. *J. Mol. Neurosci.* 33: 201-215.

## CHROMOSOMAL LOCATION

Genetic locus: HECTD1 (human) mapping to 14q12; Hectd1 (mouse) mapping to 12 C1.

## SOURCE

EULIR (D-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of EULIR of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-67562 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

EULIR (D-15) is recommended for detection of EULIR of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

EULIR (D-15) is also recommended for detection of EULIR in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for EULIR siRNA (h): sc-62284, EULIR siRNA (m): sc-62285, EULIR shRNA Plasmid (h): sc-62284-SH, EULIR shRNA Plasmid (m): sc-62285-SH, EULIR shRNA (h) Lentiviral Particles: sc-62284-V and EULIR shRNA (m) Lentiviral Particles: sc-62285-V.

Molecular Weight of EULIR: 289 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **EULIR (1E10): sc-517169**, our highly recommended monoclonal alternative to EULIR (D-15).