

---

**MATERIAL DATA SHEET**

---

**Recombinant Human His6-MBP HOIP/RNF31 Catalytic Domain****Cat. # E3-240**

HOIP (HOIL-1 Interacting Protein, also known as RNF31) is a RING domain ubiquitin E3 ligase and component of the LUBAC complex. LUBAC, a large (approximately 600 kDa) heteromultimeric assembly consisting of at least HOIP, HOIL-1, and Sharpin, conjugates linear polyubiquitin chains to various substrates and plays a key role in NF- $\kappa$ B activation and signaling events mediated through TNF $\alpha$  and IFN. Both the catalytic activity and specificity for linear ubiquitin chain formation of LUBAC are contained within the C-terminal RBR (RING-IBR-RING) and LDD (linear ubiquitin chain determining domain) domains of HOIP. HOIL-1 and Sharpin are essential for full-length HOIP activity, but not for HOIP truncation mutants consisting of the RBR and LDD domains. This protein contains N-terminal 6-His and MBP tags, and is useful for generating unanchored linear polyubiquitin chains without the requirement for HOIL-1 or Sharpin. HOIP catalytic domain contains aa's 699-1072.

**Product Information**

<b>Quantity:</b>	100 $\mu$ g
<b>MW:</b>	87 kDa
<b>Source:</b>	<i>E. coli</i> -derived Contains an N-terminal 6-His and MBP (Maltose Binding Protein) tag Accession # Q96EP0
<b>Stock:</b>	X mg/ml (X $\mu$ M) in 50 mM HEPES pH 7.5, 150 mM NaCl, 10% Glycerol, 1 mM TCEP
<b>Purity:</b>	>90%, by SDS-PAGE under reducing conditions and visualized by Colloidal Coomassie® Blue stain.

## Use & Storage

**Use:** Recombinant Human HOIP/RNF31 is a RING domain Ubiquitin ligase (E3) and component of the LUBAC complex that functions downstream of a Ubiquitin-activating (E1) enzyme and a Ubiquitin-conjugating (E2) enzyme to conjugate Ubiquitin to substrate proteins. Reaction conditions will need to be optimized for each specific application. We recommend an initial Recombinant Human HOIP/RNF31 concentration of 0.1-0.5  $\mu$ M.

**Storage:** Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -70 °C as supplied.
- 3 months, -70 °C under sterile conditions after opening.

## Literature

### References:

1. Belgnaoui S.M., *et al.* (2012) Cell Host Microbe **12**: 211-222
2. Smit J.J., *et al.* (2012) EMBO J. **31**: 3833-3844
3. Stieglitz B., *et al.* (2012) EMBO Rep. **13**: 840-846
4. Wauer T. and Komander D. (2013) EMBO J. doi:10.1038/emboj.2013.125

***For research use only. Not for use in humans.***