

MATERIAL DATA SHEET**ITCH/AIP4, isoform 2, human recombinant****Cat. # E3-260**

The mammalian Itchy homolog, or ITCH, (also known as Atrophin-1-interacting protein 4 or AIP-4) is a HECT domain class ubiquitin E3 ligase. ITCH ubiquitinates the phosphorylated form of Dishevelled protein and promotes its degradation via the Ubiquitin Proteasome System, thereby inhibiting canonical Wnt signaling. The absence of ITCH has been shown to cause severe autoimmune disease in mice. Recent studies have identified multisystem autoimmune disease and morphologic and developmental abnormalities in human patients with ITCH deficiency, thus underscoring the importance of ITCH in many cellular processes. This ligase may catalyze K29-, K48-, and/or K63-linked polyubiquitin chain formation on a variety of reported targets. This untagged, ITCH isoform 2 recombinant protein demonstrates strong autoubiquitination activity *in vitro*.

Product Information

Quantity:	100 µg
Stock:	X mg/ml (X µM) in 50 mM HEPES pH 7.5, 150 mM NaCl, 10% Glycerol, 2 mM TCEP
MW:	99 kDa
Purity:	> 90% by SDS-PAGE

Use & Storage

Use:	Typical enzyme concentration to support conjugation <i>in vitro</i> is 0.1-0.5 µM depending on experimental conditions.
Storage:	Store at -80°C. Avoid multiple freeze/thaw cycles.

Literature

References:	Wei W., <i>et al.</i> (2012) <u>Mol. Cell Biol.</u> 32 : 3903-12 Lohr N.J., <i>et al.</i> (2010) <u>Am. J. Hum. Genet.</u> 86 : 447-453 Yang C., <i>et al.</i> (2006) <u>Mol. Cell</u> 21 : 135-141
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