Recombinant Human RNF43 Protein (His tag)

Cat.NO.: TP07889

3th Edition

Synonyms:RNF124;RNF43;URCC

Description:RING finger protein 43 (RNF43) is a 90 kDa member of the ZNRF3 family of ubiquitin ligase proteins. Human RNF43 is synthesized as a 783 amino acid (aa) protein that contains a putative 23 aa signal sequence, a 174 aa extracellular domain (ECD), a transmembrane domain, and a cytoplasmic domain with an atypical RING-type zinc finger. RNF43 is expressed in stem cells at the bottom of colon crypts, where it limits the ability of Wnts to induce proliferation. RNF43 and ZNRF3, another transmembrane E3 ubiquitin ligase, ubiquitinate and promote the turnover of Frizzled Wnt receptors to antagonize Wnt signaling. RNF43 has been shown to suppress both canonical and non-canonical Wnt signaling pathways by distinct mechanisms. RNF43/ZNRF3-mediated turnover of Frizzled receptors is inhibited by R-Spondin. Dishevelled, a positive regulator of Wnt signaling, interacts with RNF43/ZNRF3 to mediate turnover of Frizzled receptors. RNF43 may promote cell survival by binding to NEDL1 and by suppressing the transcriptional activity of p53. RNF43 has been shown both to inhibit and promote cancer. Deletion of RNF43, as well as mutations found in colorectal and other cancers, allows hypersensitivity to Wnts and promotes adenoma formation. Furthermore, RNF43 down-regulation in gliomas is associated with poor prognosis. However, RNF43 is frequently over-expressed in cancers, correlating with growth-promoting activity and colorectal and hepatocellular cancer pathogenesis.

Form:PBS

Molecular Weight:20.5 kDa

Sequences: Met 1-Tyr197

Purity:> 95% by HPLC

Concentration:

Endotoxin Level:<1.0 EU per 1 ug of protein (determined by LAL method)

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.