

# Recombinant human E3 ubiquitin-protein ligase SMURF2



Catalog No: #AP71554

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Package Size: #AP71554-1 20ug #AP71554-2 100ug #AP71554-3 1mg

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## Description

Product Name	Recombinant human E3 ubiquitin-protein ligase SMURF2
Brief Description	Recombinant Protein
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-748aaSequence Info:Full Length
Other Names	SMAD ubiquitination regulatory factor 2SMAD-specific E3 ubiquitin-protein ligase 2
Accession No.	Q9HAU4
Uniprot	Q9HAU4
GeneID	64750;
Calculated MW	113.2 kDa
Tag Info	N-terminal GST-tagged
Target Sequence	MSNPGGRRNGPVKLRRLTVLCAKNLVKKDFRLLPDPFAKVVVDGSGQCHSTDTVKNTLDPKWNQHYDLYIGKS DSVTISVWNHKKIHKKQGAGFLGCVRLLSNAINRLKDTGYQRLDLCKLGPNDNDTVRGQIVVSLQSRDRIGTG GQVVDCSRLFDNDLPDGWEERRTASGRIQYLNHITRTTQWERPTRPASEYSSPGRPLSCFVDENTPISGTNG ATCGQSSDPRLAERRVRSQRHRNYMSRTHLHTPPDLPEGYEQRTTQQGQVYFLHTQTGVSTWHDPVPRD LSNINCEELGPLPPGWEIRNTATGRVYFVDHNNRTTQFTDPRLSANLHLVLRQNQLKDQQQQVVSCLPDD TECLTVPRYKRDLVQKILRQELSQQQPQAGHCRIEVSREEIFEESYRQVMKMRPKDLWKRLMIKFRGEEGL DYGGVAREWLYLLSHEMLNPYYGLFQYSRDDIYTLQINPDSAVNPEHLSYHFVGRIMGMAVFHGHYIDGGFT LPFYKQLLGSITLDDMELVDPDLHNSLVWILENDITGVLDTFCVEHNAYGEIIQHELKPNGKSIPVNEENKKE YVRLYVNWRFRLRGIEAQFLALQKGFNEVIPQHLLKTFDEKELELIICGLGKIDVNDWKVNTLRLKHCTPDSNIVKW FWKAVEFFDEERRARLLQFVTGSSRVPLQGFKALQGAAGPRLFTIHQIDACTNNLPAHTCFNRIDIPPYESYE KLYEKLLTAIETCGFAVE
Formulation	Tris-based buffer50% glycerol
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.  Generally, the shelf life of liquid form is 6 months at -20°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

## Background

E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Interacts with SMAD1 and SMAD7 in order to trigger their ubiquitination and proteasome-dependent degradation. In addition, interaction with SMAD7 activates autocatalytic degradation, which is prevented by interaction with SCYE1. Forms a stable complex with the TGF-beta receptor-mediated phosphorylated SMAD2 and SMAD3. In this way, SMAD2 may recruit substrates, such as SNON, for ubiquitin-mediated degradation. Enhances the inhibitory activity of SMAD7 and reduces the transcriptional activity of SMAD2. Coexpression of SMURF2 with SMAD1 results in considerable decrease in steady-state level of SMAD1 protein and a smaller decrease of SMAD2 level.

## References

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Smad7 binds to Smurf2 to form an E3 ubiquitin ligase that targets the TGF-beta receptor for degradation. Kavsak P., Rasmussen R.K., Causing C.G., Bonni S., Zhu H., Thomsen G.H., Wrana J.L. Mol. Cell 6:1365-1375(2000) Research Topic: Epigenetics and Nuclear Signaling

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Note: This product is for in vitro research use only