

## Product datasheet for **TP310866L**

### SMURF 2 (SMURF2) (NM\_022739) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins  
**Description:** Recombinant protein of human SMAD specific E3 ubiquitin protein ligase 2 (SMURF2), 1 mg  
**Species:** Human  
**Expression Host:** HEK293T  
**Expression cDNA Clone or AA Sequence:** >RC210866 protein sequence  
Red=Cloning site Green=Tags(s)

MSNPGGRRNGPVKLRRLTVLCAKNLVKKDFFRLPDPFAKVVDGSGQCHSTDTVKNTLDPKWNQHYDLYIG  
 KDSVTISVWNHKKIHKKQGAGFLGCVRLLSNAINRLKDTGYQRLDLCKLGPNDNDTVRGQIVVSLQSRD  
 RIGTGGQVWDCSRLFDNDLPDGWEERTASGRIQYLNHITRTTQWERPTRPASEYSSPGRPLSCFVDENT  
 PISGTNGATCGQSSDPRLAERRVRSQRHRNYMSRTHLHTPPDLPEGYEQRTTQQGQVYFLHTQTGVSTWH  
 DPRVPRDLSNINCEELGPLPPGWEIRNTATGRVYFVDHNNRTTQFTDPRLSANLHLVLRQNQLKDQQQQ  
 QVSLCPDDTECLTVPRYKRDVQKLKILRQELSQQPQAGHCRIEVSREEIFEESYRQVMKMRPKDLWK  
 RLMIKFRGEEGLDYGGVAREWLYLLSHEMLNPPYGLFYQSRDDIYTLQINPDSAVNPEHLSYFHFVGRIM  
 GMAVFHGHYIDGGFTLPFYKQLLGSITLDDMELVDPDLHNSLVWILENDITGVLDTFCVEHNAYGEII  
 QHELKPNGKSIPVNEENKKEYVRLVYNWRFLRGIEAQFLALQKGFNEVIPQHLLKTFDEKELELIICGLG  
 KIDVNDWKVNTRLKHCTPDSNIVKWFVKAVEFFDEERRARLLQFVTGSSRVPLQGFKALQGAAGPRLFTI  
 HQIDACTNNLPKAHTCFNRIDIPPYESYEKLYEKLLTAIEETCGFAVE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

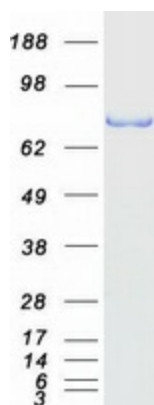
**Tag:** C-Myc/DDK  
**Predicted MW:** 86 kDa  
**Concentration:** >0.05 µg/µL as determined by microplate BCA method  
**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining  
**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol  
**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.  
**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.  
**Storage:** Store at -80°C.



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| <b>Stability:</b>        | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.  |
| <b>RefSeq:</b>           | <a href="#">NP_073576</a>  |
| <b>Locus ID:</b>         | 64750  |
| <b>UniProt ID:</b>       | <a href="#">Q9HAU4</a> , <a href="#">Q96DE7</a>  |
| <b>RefSeq Size:</b>      | 3866   |
| <b>Cytogenetics:</b>     | 17q23.3-q24.1  |
| <b>RefSeq ORF:</b>       | 2244   |
| <b>Summary:</b>          | 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.[UniProtKB/Swiss-Prot Function] |
| <b>Protein Families:</b> | Adult stem cells, Druggable Genome, ES Cell Differentiation/IPS, Transcription Factors   |
| <b>Protein Pathways:</b> | Allograft rejection, Antigen processing and presentation, Autoimmune thyroid disease, Cell adhesion molecules (CAMs), Endocytosis, Graft-versus-host disease, TGF-beta signaling pathway, Type I diabetes mellitus, Ubiquitin mediated proteolysis, Viral myocarditis  |

### Product images:



Coomassie blue staining of purified SMURF2 protein (Cat# [TP310866]). The protein was produced from HEK293T cells transfected with SMURF2 cDNA clone (Cat# [RC210866]) using MegaTran 2.0 (Cat# [TT210002]).