

## Active Recombinant Full Length Human TPX2 Protein, C-Flag-tagged

**Cat. No.** TPX2-222HFL    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>Product Overview</b> | Recombinant Full Length Human TPX2 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | Mammalian Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Description</b>      | Spindle assembly factor required for normal assembly of mitotic spindles. Required for normal assembly of microtubules during apoptosis. Required for chromatin and/or kinetochore dependent microtubule nucleation. Mediates AURKA localization to spindle microtubules. Activates AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation. TPX2 is inactivated upon binding to importin-alpha. At the onset of mitosis, GOLGA2 interacts with importin-alpha, liberating TPX2 from importin-alpha, allowing TPX2 to activates AURKA kinase and stimulates local microtubule nucleation |
| <b>Form</b>             | 25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Bio-activity</b>     | TPX2 activity in a microtubule binding assay: SAF-A binds to MT in a TPX2-dependent manner. MT binding analysis of isolated SAF-A protein in the presence of different amounts of recombinant TPX2 protein. The lower panel shows western blotting with anti-SAF-A antibody. SAF-A co-pelleted with MT was increased, dependent on the amount of TPX2.                                                                                                                                                                                                                                                                                       |

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|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 85.5 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>AA Sequence</b>    | <p>MSQVKSSYSYDAPSDFINFSSLDDEGDTQNIDSWFEEKANLENKLLGKNGTGGLFQ<br/> GKTPLRKANLQQAI VTPLKPVDNTYYKEAEKENLVEQSIPSNACSSLEVEAAISRKTP<br/> AQPQRRSLRLSAQKDLEQKEKHHVKM KAKRCATPVIIDEILPSKKMKVSNKKKKPEE<br/> EGSAHQDTAEKNASSPEKAKGRHTVPCMPPAKQKFLKST EEQELEKSMKMQQEV<br/> VEMRKKNEEFKKLALAGIGQPVKKSVSQVTKSVDFHFRTDERIKQHPKNQEEYKE V<br/> NFTSELRKHPSSPARVTKGCTIVKPFNLSQGGKRTFDETVSTYVPLAQQVEDFHKRT<br/> PNRYHLRSKKDD INLLPSKSSVTKICRDPQTPVLQTKHRARAVTCKSTAELEAELEE<br/> KLQYQYKFKARELDPRILEGGPILPK KPPVKPPTPIGFDLEIEKRIQERESKKKTEDEH<br/> FEFHSRPCPTKILEDVVGVPKVKLPITVPKSPAFA LKNRIRMPTKEDEEEDEPVIK<br/> AQPVPHYGVFPKQIPEARTVEICPFSFDSRDKERQLQKEKKIKELQK GEVPKFKAL<br/> PLPHFDTINLPEKKVKNVTVIEPFCLETDRRGALKAQTWKHQLEEEELRQQKEAACFK<br/> ARPN TVISQEPFVPKKEKKSVAEGLSGSLVQEPFQLATEKRAKERQELEKRMAEVE<br/> AQKAQQLEEARLQEEEQK<br/> KEELARLRRELVHKANPIRKYQGLEIKSSDQPLTPVPSPKFSTRFHCTRTRPLEQKLI<br/> SEEDLAANDILDYKDDDDKV</p> |
| <b>Purity</b>         | > 80% as determined by SDS-PAGE and Coomassie blue staining.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <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>Storage</b>        | Store at -80 centigrade.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Concentration</b>  | >50 ug/mL as determined by microplate BCA method.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Preparation</b>    | Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**Protein Families** Druggable Genome, Stem cell - Pluripotency

**Full Length** Full L.

## GENE INFORMATION

**Gene Name** TPX2 TPX2 microtubule nucleation factor [ Homo sapiens (human) ]

**Official Symbol** TPX2

**Synonyms** DIL2; p100; DIL-2; HCTP4; FLS353; HCA519; REPP86; C20orf1; C20orf2; GD:C20orf1

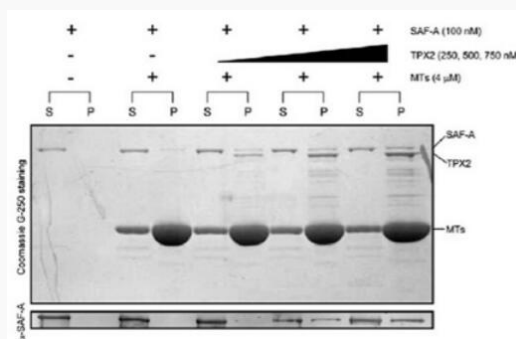
**Gene ID** 22974

**mRNA Refseq** NM\_012112.5

**Protein Refseq** NP\_036244.2

**MIM** 605917

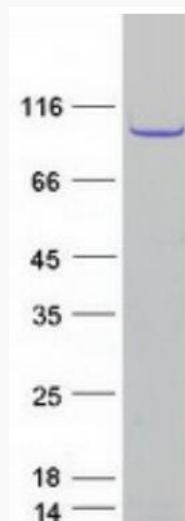
**UniProt ID** Q9ULW0



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Coomassie blue staining of purified TPX2 protein.

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