

## Product datasheet for TP305821L

### TPX2 (NM\_012112) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human TPX2, microtubule-associated, homolog (Xenopus laevis) (TPX2), 1 mg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC205821 protein sequence Red=Cloning site Green=Tags(s)

MSQVKSSYSYDAPSDFINFSSLDDEGDTQNIDSWFEEKANLENKLLGKNGTGGLFQGKTPLRKANLQQAI  
VTPLKPVNDNTYYKEAEKENLVEQSIPSNACSSLEVEAAISRKTPAQQRSLRLSAQKDLEQKEKHHVKM  
KAKRCATPVIIIDEILPSKMKVSNNKKKPEEESAHQDTAEKNASSPEKAKGRHTVPCMPPAKQKFLKST  
EEQELEKSMKMQQEVVEMRKKNEEFKLLALAGIGQPVKKSVSQVTKSVDFHFRTDERIKQHPKNQEYKE  
VNFTSELRKHPSSPARVTGCTIVKPFNLSQGKRTFDETVSTYVPLAQQVEDFHKRTPNRYHLRSKKDD  
INLLPSKSSVTKICRDPQTPVLQTKHRARAVTCKSTAELEAEELEKLQQYKFKARELDPRILEGGPILPK  
KPPVKPPTPIGFDLEIEKRIQERESKKKTEDEHFHFSRPCPTKILEDVVGVPKQVLPITVPKSPAF  
LKNRIRMPTKEDEEEDEPVVIAQVPVPHYGVFPKQIPEARTVEICPFSFDSRDKERQLQKEKKIKELQK  
GEVPKFKALPLPHFDINLPEKKVKNVTQIEPFCLETDRRGALKAQTWKHQLEELRQQKEAACFKARPN  
TVISQEPFVPKKEKKSVAEGLSGSLVQEPFLATEKRAKERQELEKRMAEVEAQKAQQLLEEARLQEEEQK  
KEELARLRRELVHKANPIRKYQGLEIKSSDQPLTVPVSPKFSTRFHC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

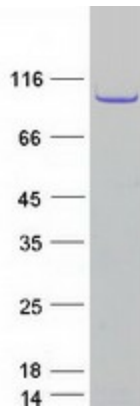
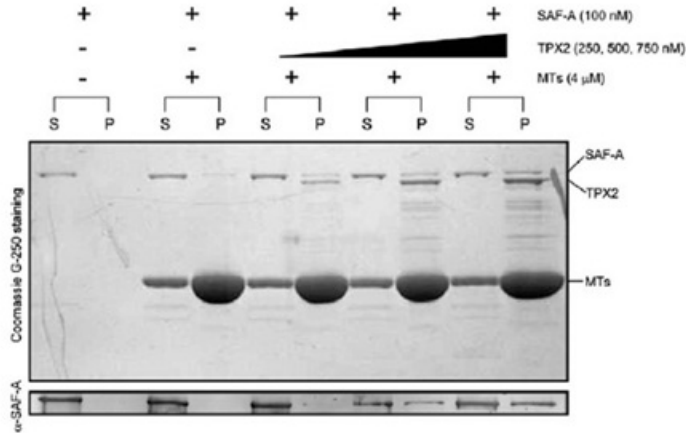
Tag:	C-Myc/DDK
Predicted MW:	85.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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<b>Bioactivity:</b>	TPX2 activity in a microtubule binding assay: <b>SAF-A binds to MT in a TPX2-dependent manner</b> . 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. S, supernatant; P, pellet.  Nan Ma, Sachihito Matsunaga, Kiichi Fukui, et al. J. Cell Science. 124, 394-404. 2011.
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.
<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_036244</a>
<b>Locus ID:</b>	22974
<b>UniProt ID:</b>	<a href="#">Q9ULW0</a> , <a href="#">Q643R0</a>
<b>RefSeq Size:</b>	3685
<b>Cytogenetics:</b>	20q11.21
<b>RefSeq ORF:</b>	2241
<b>Synonyms:</b>	C20orf1; C20orf2; DIL-2; DIL2; FLS353; GD:C20orf1; HCA519; HCTP4; p100; REPP86
<b>Summary:</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 (PubMed:18663142, PubMed:19208764). Activates AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation (PubMed:18663142, PubMed:19208764). TPX2 is inactivated upon binding to importin-alpha (PubMed:26165940). At the onset of mitosis, GOLGA2 interacts with importin-alpha, liberating TPX2 from importin-alpha, allowing TPX2 to activate AURKA kinase and stimulates local microtubule nucleation (PubMed:26165940).[UniProtKB/Swiss-Prot Function]
<b>Protein Families:</b>	Druggable Genome, Stem cell - Pluripotency

Product images:



Coomassie blue staining of purified TPX2 protein (Cat# [TP305821]). The protein was produced from HEK293T cells transfected with TPX2 cDNA clone (Cat# [RC205821]) using MegaTran 2.0 (Cat# [TT210002]).