

Product datasheet for TP305821M

TPX2 (NM_012112) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human TPX2, microtubule-associated, homolog (Xenopus laevis) (TPX2), 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC205821 protein sequence Red=Cloning site Green=Tags(s)

MSQVKSSYSYDAPSDFINFSSLDDEGDTQNIDSWFEEKANLENKLLGKNGTGGLFQGKTPLRKANLQQAI
VTPLKPVNDNTYYKEAEKENLVEQSIPSNACSSLEVEAAISRKTPAQQRSLRLSAQKDLEQKEKHHVKM
KAKRCATPVIIDEILPSKKMKVSNNKKKPEEESAHQDTAEKNASSPEKAKGRHTVPCMPPAKQKFLKST
EEQELEKSMKMQQEVVEMRKKNEEFKLLALAGIGQPVKKSVSQVTKSVDFHFRTDERIKQHPKNQEEYKE
VNFTSELRKHPSSPARVTGCTIVKPFNLSQGKRTFDETVSTYVPLAQQVEDFHKRTPNRYHLRSKKDD
INLLPSKSSVTKICRDPQTPVLQTKHRARAVTCKSTAELEAEELEKLQQYKFKARELDPRILEGGPILPK
KPPVKPPTPIGFDLEIEKRIQERESKKKTEDEHFHFSRPCPTKILEDVVGVPKQVLPITVPKSPAF
LKNRIRMPTKEDEEEDPVIKAQVPVPHYGVFPKQIPEARTVEICPFSFSDSRDKERQLQKEKKIKELQK
GEVPKFKALPLPHFDINLPEKKVKNVTQIEPFCLETDRRGALKAQTWKHQLEELRQQKEAACFKARPN
TVISQEPFVPKKEKKSVAEGLSGSLVQEPFQLATEKRAKERQELEKRMAEVEAQKAQQLLEEARLQEEEQK
KEELARLRRELHVHAKANPIRKYQGLEIKSSDQPLTVPVSPKFSTRFHC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

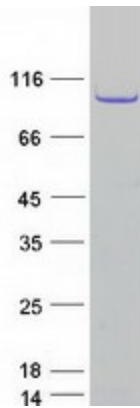
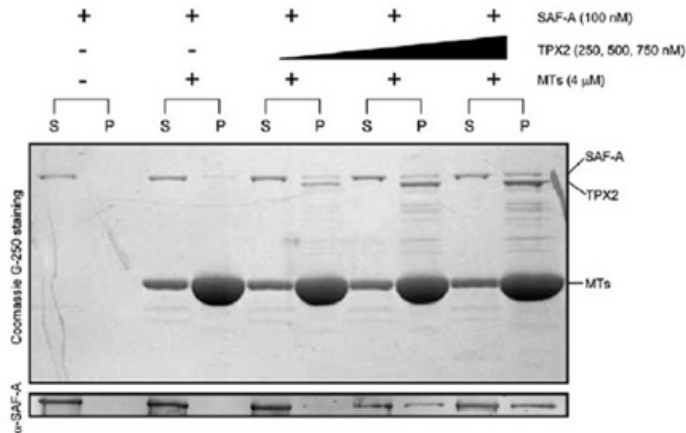
Tag:	C-Myc/DDK
Predicted MW:	85.5 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol



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Bioactivity:	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. S, supernatant; P, pellet. Nan Ma, Sachihito Matsunaga, Kiichi Fukui, et al. J. Cell Science. 124, 394-404. 2011.
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.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_036244
Locus ID:	22974
UniProt ID:	Q9ULW0 , Q643R0
RefSeq Size:	3685
Cytogenetics:	20q11.21
RefSeq ORF:	2241
Synonyms:	C20orf1; C20orf2; DIL-2; DIL2; FLS353; GD:C20orf1; HCA519; HCTP4; p100; REPP86
Summary:	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]
Protein Families:	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]).