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Product datasheet for TP526889

Bub1 (NM_001113179) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse BUB1, mitotic checkpoint serine/threonine kinase (Bub1), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR226889 representing NM_001113179 Red=Cloning site Green=Tags(s) MDNLENVFRMFEAHMQSYTGNDPLGEWESFIKWVEENFPDNKEYLMTLLEHLMKEFLHKKNYHNDSRFIN YCLKFAEYNSDRHQFFEFLYNQGIGTKSSYIYMSWAGHLEAQGELQHASAIFQTGIHNEAEPKELLQQQY RLFQARLTGIHLPAQATTSEPLHSAQILNQVMMTNSSPEKNSACVPRSQGSECSGVASSTCDEKSNIREQ RVIMISKSECSVSSSVAPKPEAQQVMYCKEKLIRGDSEFSFEELRAQKYNQRKKHEQWVSEDRNYMKRKE ANAFEEQLLKQKMDELHKKLHQVVELSHKDLPASENRPDVSLVCVGQNTCSQQELRGPSLSSISHQTSES SGEKPQEEPSVPLMVNAVNSTLLFPAANLPALPVPVSGQSLTDSRCVNQSVHEFMPQCGPETKEVCETNK VASINDFHTTPNTSLGMVQGTPCKVQPSPTVHTKEALGFIMDMFQAPTLPDISDDKDEWPSLDQNEDAFE AQFQKNAVSSGDWGVKKIMTLSSAFPIFEDGNKENYGLPQPKNKPLGARTFGERSLSKYSSRSNEMPHTD EFMDDSTVCGIRCNKTLAPSPKSIGDFTSAAQLSSTPFHKFPADLVQIPEDKENVVATQYTHMALDSCKE NIVDLSKGRKLGPIQEKISASLPCPSQPATGGLFTQEAVFGLEAFKCTGIDHATVEDLSDANAGLQVECV QTLGNVNAPSFTVENPWDDELILKLLSGLSKPVTSYSNTFEWQSKLPAIKTKTEYQLGSLLVYVNHLLGE GAFAQVFEAIHGDVRNAKSEQKCILKVQRPANSWEFYIGMQLMERLKPEVHHMFIKFYSAHLFKNGSILV GELYSYGTLLNVINLYKNTSEKVMPQALVLTFAIRMLYMVEQVHSCEIIHGDIKPDNFILGHRFLEQADE DLATGLALIDLGQSIDMKLFPKGTVFTGKCETSGFQCPEMLSNKPWNYQIDYFGVAATIYCMLFGSYMKV KNEGGVWKPEGLFRRLPHLDMWEEFFHIMLNIPDCHNLPSLDFLRQNMKKLLEQQYSNKIKTLRNRLIVM LSEYKRSRK TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-MYC/DDK
Predicted MW:	120.2 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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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 after receiving vials.
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_001106650
Locus ID:	12235
UniProt ID:	O08901, Q8K1K8, A2APR8
RefSeq Size:	4337
Cytogenetics:	2 62.1 cM
RefSeq ORF:	3177
Synonyms:	AL022991; Bub1a; C80208; D2Xrf87
Summary:	Serine/threonine-protein kinase that performs 2 crucial functions during mitosis: it is essential for spindle-assembly checkpoint signaling and for correct chromosome alignment. Has a key role in the assembly of checkpoint proteins at the kinetochore, being required for the subsequent localization of CENPF, BUB1B, CENPE and MAD2L1. Required for the kinetochore localization of PLK1. Required for centromeric enrichment of AUKRB in prometaphase. Plays an important role in defining SGO1 localization and thereby affects sister chromatid cohesion. Acts as a substrate for anaphase-promoting complex or cyclosome (APC/C) in complex with its activator CDH1 (APC/C-Cdh1). Necessary for ensuring proper chromosome segregation and binding to BUB3 is essential for this function. Can regulate chromosome segregation in a kinetochore-independent manner. Can phosphorylate BUB3. The BUB1-BUB3 complex plays a role in the inhibition of APC/C when spindle-assembly checkpoint is activated and inhibits the ubiquitin ligase activity of APC/C by phosphorylating its activator CDC20. This complex can also phosphorylate MAD1L1. Kinase activity is essential for inhibition of APC/CCDC20 and for chromosome alignment but does not play a major role in the spindle-assembly checkpoint activity. Mediates cell death in response to chromosome missegregation and acts to suppress spontaneous tumorigenesis. Essential during early and later stages of embryonic development. Necessary for postimplantation embryogenesis and proliferation of primary embryonic fibroblasts and plays an important role in spermatogenesis and fertility.[UniProtKB/Swiss-Prot Function]