OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for TR516627

Mycbp2 Mouse shRNA Plasmid (Locus ID 105689)

Product data:

Product Type:	shRNA Plasmids
Product Name:	Mycbp2 Mouse shRNA Plasmid (Locus ID 105689)
Locus ID:	105689
Synonyms:	AU023734; AW107953; AW546647; C130061D10Rik; Pam; Phr1; R75243
Vector:	pRS (TR20003)
E. coli Selection:	Ampicillin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	Mycbp2 - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID = 105689). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.
RefSeq:	NM_207215, BC022619, BC034100, BC041680, BC059257, BC062124

View online »

Summary:

Atypical E3 ubiquitin-protein ligase which specifically mediates ubiquitination of threonine and serine residues on target proteins, instead of ubiquitinating lysine residues (By similarity). Shows esterification activity towards both threonine and serine, with a preference for threonine, and acts via two essential catalytic cysteine residues that relay ubiquitin to its substrate via thioester intermediates (By similarity). Interacts with the E2 enzymes UBE2D1, UBE2D3, UBE2E1 and UBE2L3 (By similarity). Plays a key role in neural development, probably by mediating ubiquitination of threonine residues on target proteins (By similarity). Involved in different processes such as regulation of neurite outgrowth, synaptic growth, synaptogenesis and axon degeneration (PubMed:14729956, PubMed:17901218, PubMed:18031680). Required for the formation of major central nervous system axon tracts (PubMed:17901218, PubMed:18031680). Required for proper axon growth by regulating axon navigation and axon branching: acts by regulating the subcellular location and stability of MAP3K12/DLK (PubMed:18031680). Required for proper localization of retinogeniculate projections but not for eye-specific segregation (PubMed:19371781, PubMed:21324225). Regulates axon guidance in the olfactory system (PubMed:23525682). Involved in Wallerian axon degeneration, an evolutionarily conserved process that drives the loss of damaged axons: acts by promoting destabilization of NMNAT2, probably via ubiquitination of NMNAT2 (PubMed:23665224). Catalyzes ubiquitination of threonine and/or serine residues on NMNAT2, consequences of threonine and/or serine ubiquitination are however unknown (By similarity). Regulates the internalization of TRPV1 in peripheral sensory neurons (PubMed:21098484). May mediate ubiquitination and subsequent proteasomal degradation of TSC2/tuberin (By similarity). Independently of the E3 ubiquitin-protein ligase activity, also acts as a guanosine exchange factor (GEF) for RAN in neurons of dorsal root ganglia (PubMed:26304119). May function as a facilitator or regulator of transcriptional activation by MYC (By similarity). Acts in concert with HUWE1 to regulate the circadian clock gene expression by promoting the lithium-induced ubiquination and degradation of NR1D1 (PubMed:20534529).[UniProtKB/Swiss-Prot Function]

shRNA Design:

These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

Performance Guaranteed:

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).