

## Product datasheet for PH305868

### CASTOR1 (NM\_001037666) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	GATSL3 MS Standard C13 and N15-labeled recombinant protein (NP_001032755)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC205868
Predicted MW:	36.3 kDa
Protein Sequence:	>RC205868 protein sequence Red=Cloning site Green=Tags(s)

MELHILEHRVRVLSVARPGLWL YTHPLIKLLFLPRRSRCKFFSLTETPEDYTLMVDEEGFKELPPSEFLQ  
VAEATWLVLVSSHSGAAVQAAGVTKIARSVIAPLAEHVSVLMLSTYQTDIFILVREQDLSVVIHTLAQE  
FDIYREVGGEPPVTRDDSSNGFPRTQHGPSPTVHPIQSPQNRFCVLTLDPETLPAIATTLIDVLFYSHS  
TPKEAASSPEPSSITFFAFSLIEGYISIVMDAETQKKFPSDLLLTSSSGELWRMVRIGGQPLGFDECGI  
VAQIAGPLAAADISAYYISTFNFHDHALVPEDGIGSVIEVLQRRQEGLAS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<u><a href="#">NP_001032755</a></u>
RefSeq Size:	1644
RefSeq ORF:	987
Synonyms:	GATSL3
Locus ID:	652968



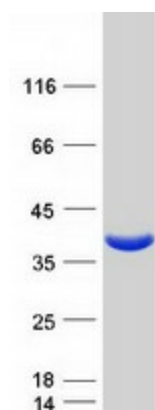
[View online »](#)

UniProt ID: [Q8WTX7](#)

Cytogenetics: 22q12.2

**Summary:** Functions as an intracellular arginine sensor within the amino acid-sensing branch of the TORC1 signaling pathway. As a homodimer or a heterodimer with CASTOR2, binds and inhibits the GATOR subcomplex GATOR2 and thereby mTORC1. Binding of arginine to CASTOR1 allosterically disrupts the interaction of CASTOR1-containing dimers with GATOR2 which can in turn activate mTORC1 and the TORC1 signaling pathway.[UniProtKB/Swiss-Prot Function]

### Product images:



Coomassie blue staining of purified CASTOR1 protein (Cat# [TP305868]). The protein was produced from HEK293T cells transfected with CASTOR1 cDNA clone (Cat# [RC205868]) using MegaTran 2.0 (Cat# [TT210002]).