

Product Data Sheet

SH3PXD2A Protein, Human (Myc, His)

Cat. No.:	HY-P71572
Synonyms:	Adapter protein TKS5; Five SH3 domain-containing protein; SH3 and PX domain-containing protein 2A; SH3 multiple domains protein 1; Sh3md1; Sh3pxd2a; SPD2A_HUMAN; TKs5; Tyrosine kinase substrate with five SH3 domains
Species:	Human
Source:	E. coli
Accession:	Q5TCZ1 (902P-986P)
Gene ID:	9644
Molecular Weight:	Approximately 14.0 kDa

DDODEDTIES	
PROPERTIES	
AA Sequence	PDPSGKELDT VPAKGRQNEG KSDSLEKIER RVQALNTVNQ SKKATPPIPS KPPGGFGKTS GTPAVKMRNG VRQVAVRPQS VFVSP
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier pro recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

BackgroundSH3PXD2A, functioning as an adapter protein, plays a pivotal role in the formation of invadopodia and podosomes,
contributing to extracellular matrix degradation and enhancing the invasiveness of certain cancer cells. This multifaceted
protein establishes connections with matrix metalloproteinases (ADAMs), NADPH oxidases (NOXs), and phosphoinositides,
thereby participating in diverse cellular processes. Acting as an organizer protein, SH3PXD2A facilitates NOX1- or NOX3-
dependent reactive oxygen species (ROS) generation and ensures precise ROS localization. In collaboration with ADAM12, it
mediates the neurotoxic effects induced by amyloid-beta peptide. The protein further interacts with CYBA, ADAM15,
ADAM19, NOXO1, and NOXA1, forming a complex network of molecular associations. Notably, its interaction with FASLG
underscores its involvement in intricate cellular signaling pathways.

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Caution: Product has not been fully validated for medical applications. For research use only.

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