

YES1 Protein, Human (sf9, His-GST)

Cat. No.:	HY-P73486
Synonyms:	Tyrosine-protein kinase Yes; p61-Yes; YES1; YES
Species:	Human
Source:	Sf9 insect cells
Accession:	P07947 (G2-L543)
Gene ID:	7525
Molecular Weight:	Approximately 75 kDa

PROPERTIES

Biological Activity	The specific activity was determined to be > 35 nmol/min/mg using Poly (Glu,Tyr) 4:1 as substrate.
Appearance	Solution.
Formulation	Supplied as sterile 20 mM Tris, 500 mM NaCl, 10% gly, 0.5 mM TCEP, pH 8.0
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	N/A
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

YES1, a non-receptor protein tyrosine kinase, is a pivotal regulator of diverse cellular processes, including cell growth, survival, apoptosis, cell-cell adhesion, cytoskeleton remodeling, and differentiation. Activation by various receptor tyrosine kinases (RTKs), such as EGFR, PDGFR, CSF1R, and FGFR, results in its recruitment to phosphorylated receptors, initiating downstream substrate activation and phosphorylation. Upon EGFR activation, YES1 facilitates the phosphorylation of PARD3, promoting epithelial tight junction assembly. At cell-cell contacts, it stimulates the FYN and FER tyrosine kinases, leading to the phosphorylation of specific junctional components like CTNND1. In response to T-cell stimulation by CXCL12, YES1 phosphorylates collapsin response mediator protein 2/DPYSL2, inducing T-cell migration. Additionally, it participates in CD95L/FASLG signaling, mediating AKT-dependent cell migration. YES1's involvement in cell cycle progression is evident through the phosphorylation of cyclin-dependent kinase 4/CDK4, regulating the G1 phase, and its role in G2/M progression and cytokinesis. Furthermore, YES1 catalyzes the phosphorylation of the organic cation transporter OCT2, enhancing its transport activity.

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

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