Recombinant PDCD4 protein (His tag)

Catalog Number	545111
Synonyms	Neoplastic transformation inhibitor protein; Nuclear antigen H731-like; Protein 197/15a
Species	Human
Expression System	E. coli
Accession	Q53EL6
Molecular Weight	Predictes a molecular mass of 39.03 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 44 kDa band.

Product Information

Sequence Region	136-469
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 136-469 aa (Q53EL6) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	This recombinant protein product features a 334-amino acid fragment (residues 136-469) of human Programmed Cell Death Protein 4 (PDCD4), a critical tumor suppressor and translation initiation inhibitor. The fragment fully encompasses both MA-3 domains (MI 1 and MI 2), making it an ideal tool for studying PDCD4's specific molecular functions in translation regulation and tumor suppression pathways. Programmed Cell Death Protein 4 (PDCD4) is a well-characterized tumor suppressor that inhibits translation initiation and cap-dependent translation by interfering with the EIF4A1-EIF4G interaction and suppressing EIF4A helicase activity. It modulates JUN kinase activation and down-regulates MAP4K1 expression, thereby inhibiting MAPK85 activation and JUN-dependent transcription events that drive cellular invasion. PDCD4 shuttles between nucleus and cytoplasm, with predominant nuclear localization under normal growth conditions. The protein's role in apoptosis and neoplastic transformation inhibition makes it a significant target for cancer research and therapeutic development.