Recombinant PASD1 protein (His tag)

Catalog Number	547677
Synonyms	Cancer/testis antigen 63; CT63; OX-TES-1; PAS domain-containing protein 1
Species	Human
Expression System	E. coli
Accession	Q8IV76
Molecular Weight	Predictes a molecular mass of 17.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	1-136
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-136 aa (Q8IV76) 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	Recombinant Human PASD1 (1-136) Fragment is a high-purity protein preparation encompassing the complete PAS domain of the circadian clock protein PASD1. This fragment serves as an essential research tool for investigating the molecular mechanisms of circadian rhythm regulation and PAS domain-mediated protein interactions in cancer biology. PASD1 functions as a key suppressor of the biological clock that governs daily circadian rhythms throughout the body. The full-length protein acts as a nuclear repressor of CLOCK-BMAL1 heterodimer-mediated transcriptional activation of core clock components. Research indicates that PASD1 inhibits circadian clock function when overexpressed in cancer cells, with both isoforms 1 and 2 localizing to the nucleus and associating preferentially with heterochromatin at the nuclear periphery. This nuclear localization and heterochromatin association are critical for its repressive function on circadian transcriptional regulation.