Recombinant PCGF1 protein (His tag)

Catalog Number	548111
Synonyms	Nervous system Polycomb-1; NSPc1; RING finger protein 68
Species	Human
Expression System	E. coli
Accession	Q9BSM1
Molecular Weight	Predictes a molecular mass of 16.94 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	2-133
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 2-133 aa (Q9BSM1) 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	Introducing the recombinant human Polycomb group RING finger protein 1 (NSPc1/RNF68) fragment (residues 2-133), a stable and soluble protein unit ideal for structural biology and biochemical studies. This fragment enables researchers to investigate the molecular mechanisms of transcriptional regulation and chromatin remodeling without the challenges of full-length protein expression. Polycomb group RING finger protein 1 (PCGF1) is a crucial component of the Polycomb group multiprotein complexes, including the BCOR and PRC1-like complexes. These complexes maintain transcriptional repression of key genes such as BCL6, CDKN1A, DPPA4, and NANOG through chromatin remodeling and histone modification. The protein mediates monoubiquitination of histone H2A at Lys-119 via regulation of RNF2 ubiquitin ligase activity, establishing heritable changes in chromatin expressibility. PCGF1 promotes cell cycle progression, enhances cell proliferation, and has implications in tumor cell growth through CDKN1A down-regulation. Located exclusively in the nucleus, this protein represents an important regulator of developmental gene expression and epigenetic control mechanisms.