Recombinant KAT7 protein (His tag)

Catalog Number	539616
Synonyms	Histone acetyltransferase binding to ORC1; Lysine acetyltransferase 7; MOZ, YBF2/SAS3, SAS2 and TIP60 protein 2; MYST-2
Species	Human
Expression System	E. coli
Accession	O95251
Molecular Weight	Predictes a molecular mass of 51.93 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 53 kDa band.

Product Information

Sequence Region	184-611
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 184-611 aa (O95251) 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 KAT7 (Histone Acetyltransferase KAT7) Fragment (aa 184-611) is a high-purity protein encompassing the catalytic MYST-type histone acetyltransferase (HAT) domain. This fragment is engineered to support research on histone acetylation mechanisms, gene regulation, and DNA replication, providing a focused tool for studying domain-specific functions without interference from regulatory regions. Histone acetyltransferase KAT7 (also known as HBO1 or MYST-2) is a crucial enzyme in epigenetic regulation, serving as the catalytic subunit of HBO1 complexes that acetylate histone H3 at lysine 14 (H3K14ac) and histone H4 at lysine 5, 8, and 12. These modifications influence transcriptional elongation, DNA replication initiation, centromere assembly, nucleotide excision repair, and hematopoietic differentiation. KAT7 localizes primarily to the nucleus, associating with chromosomes, centromeres, and replication origins during specific cell cycle phases, and plays roles in maintaining stem cell pluripotency and leukemia stem cell function. The full-length protein's activity is scaffold-dependent, with BRPF proteins directing H3K14 acetylation and JADE proteins directing H4 acetylation, highlighting its versatility in chromatin remodeling and cellular processes.