# Recombinant KAT2A protein (His tag)

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| **Catalog Number** | 538641 |
| **Synonyms** | General control of amino acid synthesis protein 5-like 2; Histone acetyltransferase GCN5; hGCN5; Histone glutaryltransferase KAT2A; Histone succinyltransferase KAT2A; Lysine acetyltransferase 2A; STAF97 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q92830 |
| **Molecular Weight** | Predictes a molecular mass of 45.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band. |

## Product Information

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| **Sequence Region** | 460-837 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >89%, 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 460-837 aa (Q92830) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Human KAT2A Protein Fragment (aa 460-837) - A highly functional fragment containing the complete N-acetyltransferase and Bromo domains, essential for studying histone modification mechanisms and epigenetic regulation. This purified protein fragment serves as an ideal tool for investigating lysine acyltransferase activity, including acetylation, succinylation, and glutarylation functions in chromatin remodeling and gene expression regulation.<br>Histone acetyltransferase KAT2A (also known as GCN5) is a crucial epigenetic regulator that functions as a multifunctional lysine acyltransferase with acetyltransferase, glutaryltransferase, and succinyltransferase activities. The full-length protein localizes primarily to the nucleus and associates with chromosomes, where it catalyzes various histone modifications including H3K79 succinylation, H3K9 acetylation, and H4K91 glutarylation, providing specific tags for epigenetic transcription activation. KAT2A plays fundamental roles in gene expression regulation, T-cell activation, embryonic stem cell differentiation, memory consolidation, and organ development. It functions within complexes such as SAGA and ATAC, where it mediates histone acetylation, and requires association with the 2-oxoglutarate dehydrogenase complex for histone succinylation activity. The protein also acetylates non-histone targets including TBX5, PLK4, and PPARGC1A, regulating processes from heart development to gluconeogenesis. This specific fragment encompasses the critical functional domains necessary for its catalytic and chromatin-binding activities. |