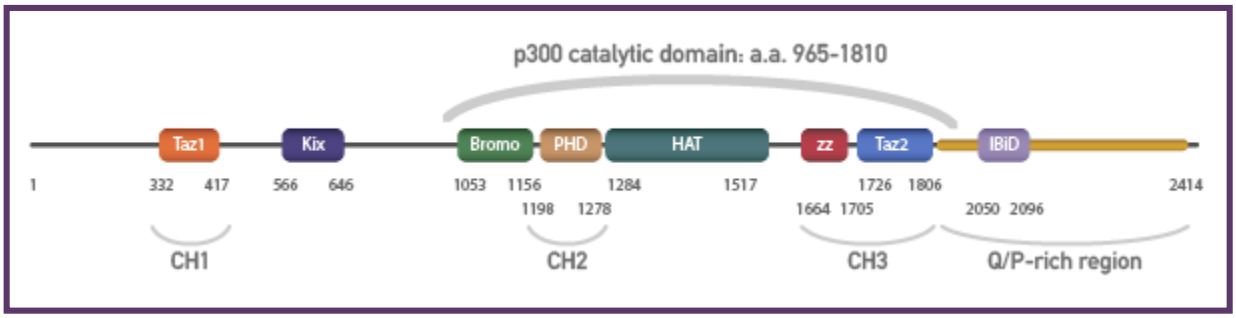
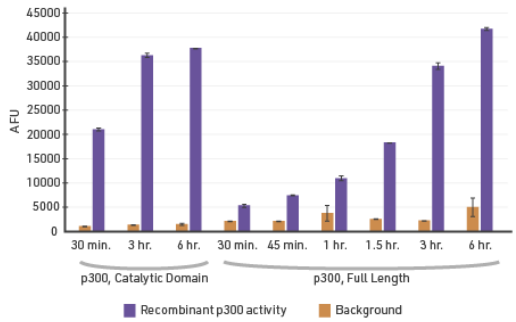
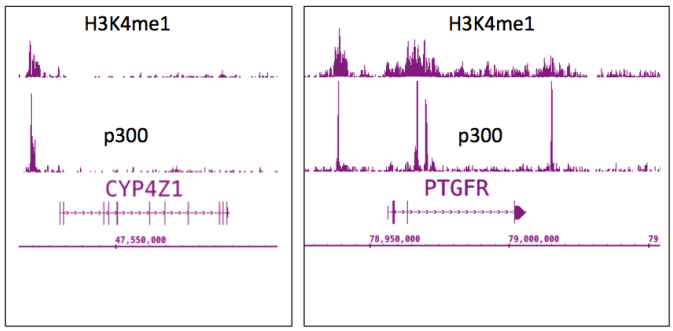
Histone Acetyltransferase – p300



p300 and CBP (CREB Binding Protein) are transcriptional co-activators that regulate gene expression through acetylation of histones and chromatin remodeling. p300 interacts with over 50 intracellular proteins affecting a range of signaling pathways, while mutations in p300 can lead to dysregulated cell growth and division and are implicated in acute myeloid leukemia (AML) and multiple solid tumor types.

Example Data





Recombinant p300 proteins – Histone Acetyltransferase Activity with H4 Substrate

Activity of Recombinant p300 proteins was assessed using the Active Motif HAT Assay Kit. Equimolar amounts of p300, Catalytic Domain (Cat. No. 81093) and p300, Full Length (81158) proteins were incubated with H4 peptide for 30 minutes to 6 hours and developed as per the kit protocol. Graph shows averages ± SEM of arbitrary fluorescence units (AFU).

p300 mAb ChIP-Seq

ChIP was performed using the ChIP-IT® High Sensitivity Kit (Cat. No. 53040) with chromatin from 4.5 million LNCaP cells and 5 µl of p300 antibody (Cat. No. 61401). ChIP DNA was sequenced on the Illumina HiSeq and 15 million sequence tags were mapped to identify p300 binding sites. p300 along with H3K4me1 are markers of active enhancer elements and are therefore expected to co-localize. A sampling of the p300 ChIP-Seq data shows the expected co-localization of p300 and H3K4me1.

Featured Publication

- Raisner, R., et. al. 2018. Cell Reports 24: 1722-1729.

Featured Products

- #56100 - HAT Assay Kit (Fluorescent)
- #81158 - Recombinant p300 protein
- #81903 - Recombinant p300 protein, catalytic domain
- #31372 - Recombinant p300 (1041-1161) protein
- #61401 - p300 antibody (mAb) [ChIP-seq validated]

Contact

- eurotech@activemotif.com

lubio science

Your distributor in Switzerland

LubioScience GmbH
Baumackerstrasse 24
8050 Zürich
Phone 041 417 02 80
Fax 041 417 02 89
info@lubio.ch
www.lubio.ch