

BACKGROUND

TIP60 (Tat Interacting Protein 60) was originally reported as a protein that interacts with HIV-1 Tat protein and stimulate the ability of Tat to transactivate expression from HIV-1 promoter.¹ The HTATIP gene encoding TIP60 is located at 11q13.1 and consists of 14 exons. Alternate splicing generates three isoforms of TIP60, which are expressed at relatively low levels in a broad variety of tissues and exhibit cell type specific functions.

Being one of the MYST family members, TIP60 functions as a lysine acetyltransferase and involves in a broad range of biological processes, such as gene regulation, dosage compensation, DNA damage repair and tumourigenesis.²

Soon after its discovery, TIP60 was found to be involved in nuclear receptor (NR) signaling and to be a NR-coregulator. TIP60 binds to the ligand binding domain of AR and other NRs via a single NR-box that comprises the Leu-X-X-Leu-Leu motif near the TIP60 C-terminus and thus coregulates NR mediated gene expression. AR acetylation by TIP60 is essential for TIP60 dependent AR coactivation. Besides, TIP60 also involves in signaling pathway of many other important transcription factors such as Myc and NF- κ B. Myc regulates genes for growth and DNA replication as well as apoptosis while NF- κ B controls cellular processes, such as immunity, inflammation, proliferation and apoptosis.

TIP60 is also important in DNA damage response. It has been found that TIP60 complex is capable of binding structural DNA intermediates involved in DNA repair and replication. Accumulated evidence implied that TIP60 is essential in double strand break response via different mechanisms such as p53 activation and gene transactivation as well as H4 acetylation.

References:

1. Kamine, J et al: Virology. 216, 357-366, 1996.
2. Utley, R. T. & Cote, J.: Curr. Top Microbiol. Immunol. 274, 203-236. 2003.

TECHNICAL INFORMATION

Source:

TIP60 Antibody is a rabbit antibody raised against a short peptide from human TIP60 carboxyl-terminal sequence.

Specificity and Sensitivity:

This antibody detects endogenous TIP60 proteins without cross-reactivity with other family members.

Storage Buffer: PBS and 30% glycerol

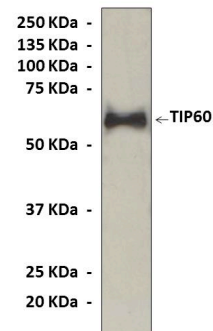
Storage: Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

APPLICATIONS

Application:	*Dilution:
WB	1:500-1000
IP	n/d
IHC	n/d
ICC	n/d
FACS	n/d

**Optimal dilutions must be determined by end user.*

QUALITY CONTROL DATA



WB: Detection of TIP60 proteins in 3T3 cell lysate using TIP60 Antibody. 3T3 cells were starved for 24 hours before lysis

