

Alexa Fluor® 647 Anti-SET/TAF-I antibody [EPR12973] ab237305

Recombinant RabMAb

2 Images

Overview

| | |
|----------------------------|---|
| Product name | Alexa Fluor® 647 Anti-SET/TAF-I antibody [EPR12973] |
| Description | Alexa Fluor® 647 Rabbit monoclonal [EPR12973] to SET/TAF-I |
| Host species | Rabbit |
| Conjugation | Alexa Fluor® 647. Ex: 652nm, Em: 668nm |
| Tested applications | Suitable for: ICC/IF |
| Species reactivity | Reacts with: Human |
| Immunogen | Synthetic peptide. This information is proprietary to Abcam and/or its suppliers. |
| Positive control | ICC/IF: HeLa cells. |
| General notes | <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.</p> <p>Alexa Fluor® is a registered trademark of Molecular Probes, Inc, a Thermo Fisher Scientific Company. The Alexa Fluor® dye included in this product is provided under an intellectual property license from Life Technologies Corporation. As this product contains the Alexa Fluor® dye, the purchase of this product conveys to the buyer the non-transferable right to use the purchased product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). As this product contains the Alexa Fluor® dye the sale of this product is expressly conditioned on the buyer not using the product or its components, or any materials made using the product or its components, in any activity to generate revenue, which may include, but is not limited to use of the product or its components: (i) in manufacturing; (ii) to provide a service, information, or data in return for payment (iii) for therapeutic, diagnostic or prophylactic purposes; or (iv) for resale, regardless of whether they are sold for use in research. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, 5781 Van Allen Way, Carlsbad, CA 92008 USA or outlicensing@thermofisher.com.</p> |

Properties

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|-----------------------------|---|
| Form | Liquid |
| Storage instructions | Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle. Stable for 12 months at -20°C. Store In the Dark. |
| Storage buffer | pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 30% Glycerol (glycerin, glycerine), 1% BSA, PBS |
| Purity | Affinity purified |
| Clonality | Monoclonal |
| Clone number | EPR12973 |
| Isotype | IgG |

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab237305 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes |
|-------------|-----------|--|
| ICC/IF | | 1/100. This product gave a positive signal in HeLa fixed with 4% formaldehyde (10 min) and 100% methanol (5 min). |

Target

| | |
|-------------------------------|---|
| Function | Multitasking protein, involved in apoptosis, transcription, nucleosome assembly and histone binding. Isoform 2 anti-apoptotic activity is mediated by inhibition of the GZMA-activated DNase, NME1. In the course of cytotoxic T-lymphocyte (CTL)-induced apoptosis, GZMA cleaves SET, disrupting its binding to NME1 and releasing NME1 inhibition. Isoform 1 and isoform 2 are potent inhibitors of protein phosphatase 2A. Isoform 1 and isoform 2 inhibit EP300/CREBBP and PCAF-mediated acetylation of histones (HAT) and nucleosomes, most probably by masking the accessibility of lysines of histones to the acetylases. The predominant target for inhibition is histone H4. HAT inhibition leads to silencing of HAT-dependent transcription and prevents active demethylation of DNA. Both isoforms stimulate DNA replication of the adenovirus genome complexed with viral core proteins; however, isoform 2 specific activity is higher. |
| Tissue specificity | Widely expressed. Low levels in quiescent cells during serum starvation, contact inhibition or differentiation. Highly expressed in Wilms' tumor. |
| Involvement in disease | Note=A chromosomal aberration involving SET is found in some cases of acute undifferentiated leukemia (AUL). Translocation t(6;9)(q21;q34.1) with NUP214/CAN. |
| Sequence similarities | Belongs to the nucleosome assembly protein (NAP) family. |
| Domain | The C-terminal acidic domain mediates the inhibition of histone acetyltransferases and is required for the DNA replication stimulatory activity. |
| Post-translational | Isoform 2 is phosphorylated on Ser-15 and Thr-23. |

modifications

Isoform 2 is acetylated on Lys-11.

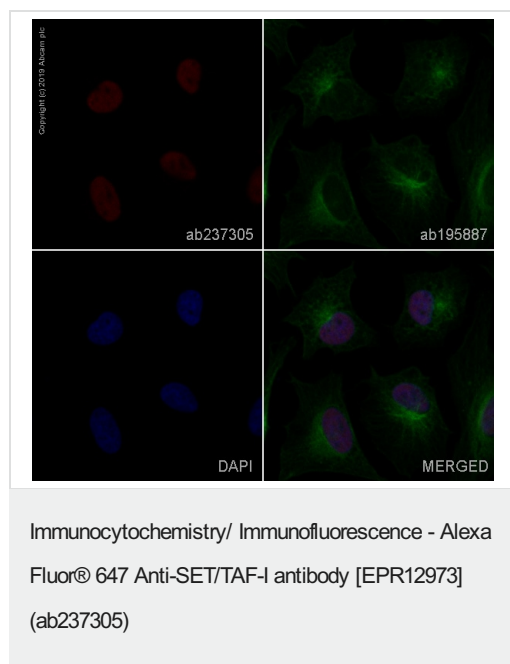
Some glutamate residues are glycyated by TTLL8. This modification occurs exclusively on glutamate residues and results in a glycine chain on the gamma-carboxyl group.

N-terminus of isoform 1 is methylated by METTL11A/NTM1. Mainly trimethylated.

Cellular localization

Cytoplasm > cytosol. Endoplasmic reticulum. Nucleus > nucleoplasm. In the cytoplasm, found both in the cytosol and associated with the endoplasmic reticulum. Following CTL attack, moves rapidly to the nucleus, where it is found in the nucleoplasm, avoiding the nucleolus. Similar translocation to the nucleus is also observed for lymphocyte-activated killer cells after the addition of calcium. The SET complex is associated with the endoplasmic reticulum.

Images



ab237305 staining SET in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton X-100 for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab237305 at 1/100 dilution (shown in red) and **ab195887**, Mouse monoclonal to alpha Tubulin (Alexa Fluor® 488), at 1/250 dilution (shown in green). Nuclear DNA was labeled with DAPI (shown in blue).

Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

This product also gave a positive signal under the same testing conditions in HeLa cells fixed with 100% methanol (5 min).

Why choose a recombinant antibody?

- Research with confidence**
Consistent and reproducible results
- Long-term and scalable supply**
Recombinant technology
- Success from the first experiment**
Confirmed specificity
- Ethical standards compliant**
Animal-free production

Alexa Fluor® 647 Anti-SET/TAF-I antibody [EPR12973] (ab237305)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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