abcam

# ab181117

# Anti-ASH2L antibody [EPR13106]

Recombinant | RabMAb

## Key facts

| | |
|---|---|
| **Isotype** | IgG |
| **Host species** | Rabbit |
| **Storage buffer** | Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA |
| **Form** | Liquid |
| **Clonality** | Monoclonal |
| **Immunogen** | The exact immunogen used to generate this antibody is proprietary information. |
| **Clone number** | EPR13106 |
| **Purity** | Tissue culture supernatant |

## Reactivity data

## IP

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/60 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Rat |

| | |
|---|---|
| **Dilution info** | 1/60 |
| **Notes** | - |

## WB

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/1000 - 1/10000 |
| **Notes** | - |

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 1/1000 - 1/10000 |
| **Notes** | - |

## ICC/IF

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/50 - 1/100 |
| **Notes** | - |

### Expected

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 1/50 - 1/100 |
| **Notes** | - |

## Flow Cyt (Intra)

### Tested

| | |
|---|---|
| **Species** | Human |
| **Dilution info** | 1/20 |
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

### Expected

| | |
|---|---|
| **Species** | Rat |
| **Dilution info** | 1/20 |
| **Notes** | ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody. |

## Target data

See full target information ASH2L

| | |
|---|---|
| **Function** | Transcriptional regulator (PubMed:12670868). Component or associated component of some histone methyltransferase complexes which regulates transcription through recruitment of those complexes to gene promoters (PubMed:19131338). Component of the Set1/Ash2 histone methyltransferase (HMT) complex, a complex that specifically methylates 'Lys-4' of histone H3, but not if the neighboring 'Lys-9' residue is already methylated (PubMed:19556245). As part of the MLL1/MLL complex it is involved in methylation and dimethylation at 'Lys-4' of histone H3 (PubMed:19556245). May play a role in hematopoiesis (PubMed:12670868). In association with RBBP5 and WDR5, stimulates the histone methyltransferase activities of KMT2A, KMT2B, KMT2C, KMT2D, SETD1A and SETD1B (PubMed:21220120, PubMed:22266653). |

## Storage

| | |
|---|---|
| **Shipped at conditions** | Conditional Ambient |
| **Appropriate short-term storage duration** | 1-2 weeks |
| **Appropriate short-term storage conditions** | +4°C |
| **Appropriate long-term storage conditions** | -20°C |
| **Aliquoting information** | Upon delivery aliquot |
| **Storage information** | Avoid freeze / thaw cycle |

## Notes

**Patented technology**
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For

details on our patents, please refer to RabMAb® patents.

**What are the advantages of a recombinant monoclonal antibody?**
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

## Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

| | |
|---|---|
| **Activity summary** | ASH2L also known as ASH2 is a protein with a mass of approximately 75 kDa. It functions as part of the trithorax group (TrxG) complex specifically the COMPASS-like complex where it plays an important role in histone methylation. This methylation occurs at histone H3 on lysine 4 (H3K4) an important modification for transcriptional activation. ASH2L expresses in various tissues with significant levels in the nucleus due to its involvement in chromatin modification. |
| **Biological function summary** | ASH2L participates in the regulation of gene expression. It acts as a core subunit of the SET/MLL family of H3K4 methyltransferases which form part of larger COMPASS-like complexes. These complexes modulate chromatin structure influencing transcriptional activation by methylating histone H3 at lysine 4. This modification is essential for the transition from transcriptional repression to activation during development and cell differentiation. ASH2L's role in these processes highlights its importance in maintaining proper gene expression patterns. |
| **Pathways** | ASH2L participates in the Wnt signaling pathway and influences the cell cycle. In the Wnt pathway ASH2L interacts with proteins such as β-catenin to modulate the transcription of target genes. It also affects the methylation status of promoters in various signaling pathways contributing to the regulation of gene expression involved in cell proliferation and differentiation. Additionally ASH2L is functionally connected to other proteins like MLL1 which shares involvement in chromatin remodeling and is important for epigenetic regulation. |
| **Associated diseases and disorders** | ASH2L association with cancer and neurodevelopmental disorders is significant. Changes in ASH2L expression or function can lead to dysregulation of gene expression promoting oncogenesis or developmental abnormalities. In some cancers ASH2L's interaction with MLL can result in altered histone marks affecting tumor suppressor or oncogene expression. Besides cancer neurodevelopmental disorders like intellectual disability may have links to ASH2L due to its role in regulating genes involved in brain development. Understanding ASH2L's interactions and dysfunctions in these contexts provides insight into potential therapeutic approaches. |

## Product promise

**Tested**

We have tested this species and application combination and it works. It is covered by our product promise.

**Expected**

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

**Predicted**

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

**Not recommended**

We do not recommend this combination. It is not covered by our product promise.

---

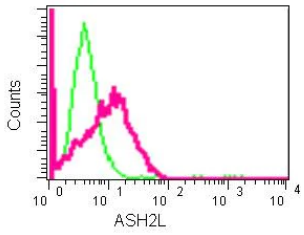
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

---

## 4 product images

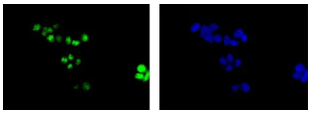



### Flow Cytometry (Intracellular) - Anti-ASH2L antibody [EPR13106] (ab181117)

ASH2L Flow Cytometry (Intracellular) staining using rabbit Anti-ASH2L antibody

Intracellular flow cytometric analysis of2% paraformaldehyde fixed HeLa cells labeling ASH2L with ab181117 at 1/20 followed byGoat anti rabbit IgG (FITC) at 1/150 (pink).Rabbit monoclonal IgG was used as Isotype control (green).

---

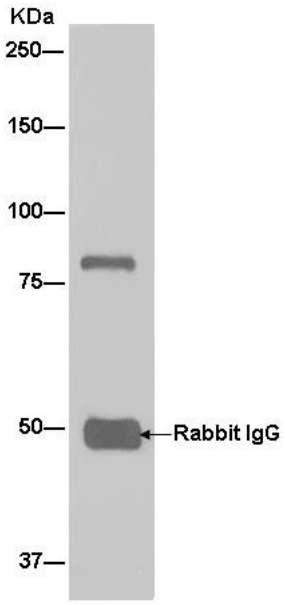


### Immunocytochemistry/ Immunofluorescence - Anti-ASH2L antibody [EPR13106] (ab181117)

ASH2L Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-ASH2L antibody

Immunofluorescent analysis of acetone fixed HeLa cells labeling ASH2L with ab181117 at 1/100 (green). Staining with Dapi is shown in blue.

---

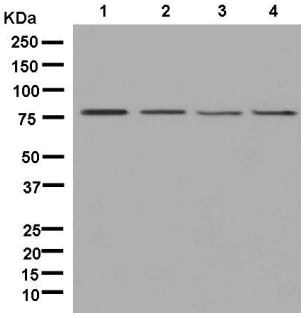



## Immunoprecipitation - Anti-ASH2L antibody [EPR13106] (ab181117)

Immunoprecipitation analysis of 293T cells labeling ASH2L using ab181117 at 1/60 dilution. A Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/2000 was used as secondary antibody.
All lanes:
Immunoprecipitation - Anti-ASH2L antibody [EPR13106] (ab181117)

Predicted band size: 69 kDa

Observed band size: 50 kDa, 80 kDa




## Western blot - Anti-ASH2L antibody [EPR13106] (ab181117)

ASH2L Western blot staining using rabbit Anti-ASH2L antibody

All lanes:
Western blot - Anti-ASH2L antibody [EPR13106] (ab181117) at 1/10000 dilution

Lane 1:
293T cell lysate at 20 µg

Lane 2:
K562 cell lysate at 20 µg

Lane 3:
C6 cell lysate at 20 µg

Lane 4:
PC-12 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 69 kDa

Observed band size: 80 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.