# Data Sheet (Cat.No.TMAH-01258)

## Anti-14-3-3 beta/alpha Antibody (2E46)

### Product Details

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| Ig Type: | Rabbit IgG |
| Reactivity: | Human, Mouse, Rat |
| Conjugation: | Unconjugated |
| Clone: | 2E46 |
| Purification: | Affinity-chromatography |

### Applications

Verified Activity:

1. Western Blot
-Positive WB detected in: U87 whole cell lysate, MCF-7 whole cell lysate, PC3 whole cell lysate, Hela whole cell lysate, SH-SY5Y whole cell lysate, THP-1 whole cell lysate, A549 whole cell lysate, Mouse brain tissue, Rat brain tissue
-All lanes: YWHAB antibody at 1:1000
-Secondary: Goat polyclonal to rabbit IgG at 1/50000 dilution
-Predicted band size: 29, 28 kDa
-Observed band size: 25-35 kDa
2. Overlay Peak curve showing Hela cells stained with TMAH-01258 (red line) at 1:100. The cells were fixed in 4% formaldehyde (15min) and permeated by 0.2% TritonX-100 for 10min. Then 10% normal goat serum to block non-specific protein-protein interactions followed by the antibody (1ug/1*10^6 cells) for 45min at 4°C. The secondary antibody used was FITC-conjugated Goat Anti-rabbit IgG(H+L) at 1:200 dilution for 35min at 4°C.Control antibody (green line) was rabbit IgG (1ug/1*10^6 cells) used under the same conditions. Acquisition of >10,000 events was performed.
3. IHC image of TMAH-01258 diluted at 1:50 and staining in paraffin-embedded human lung cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB. Secondary antibody only control: uses 1% BSA instead of primary antibody
4. IHC image of TMAH-01258 diluted at 1:50 and staining in paraffin-embedded human colorectal cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB. Secondary antibody only control: uses 1% BSA instead of primary antibody
5. IHC image of TMAH-01258 diluted at 1:50 and staining in paraffin-embedded human breast cancer performed on a Leica BondTM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit polymer IgG labeled by HRP and visualized using 0.05% DAB. Secondary antibody only control: uses 1% BSA instead of primary antibody

6. Immunofluorescence staining of A431 cell with TMAH-01258 at 1:20, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and and permeated by 0.2% TritonX-100 for 15 min. Then 10% normal goat serum to block non-specific protein-protein interactions. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).
7. Immunofluorescence staining of A431 cell with 5% goat serum, counter-stained with DAPI. The cells were fixed in 4% formaldehyde and blocked in 10% normal Goat Serum. The cells were then incubated with the antibody overnight at 4°C. The secondary antibody was Alexa Fluor 488-congugated AffiniPure Goat Anti-Rabbit IgG(H+L).

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| Application: | ELISA,FCM,IF,WB |
| Recommended | WB:1:500-1:2000; IF:1:50-1:200; FCM:1:50-1:200. |

## Properties

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| Stability & Storage: | Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. |
| Shipping: | Shipping with blue ice. |

## Antigen Details

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| Immunogen: | A synthetic peptide: Human YWHAB |
| Antigen Species: | Human |
| Gene ID: | 7529 |
| Uniprot ID: | P31946 |
| Synonyms: | 14-3-3 β;tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, β; YWHAA;HEL-S-1;tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, beta;HS1;GW128;KCIP-1 |
| Biology Area: | Neuroscience, Cell biology, Signal transduction, Stem cells |

## Research Background

Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways. Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif. Binding generally results in the modulation of the activity of the binding partner. Negative regulator of osteogenesis. Blocks the nuclear translocation of the phosphorylated form (by AKT1) of SRPK2 and antagonizes its stimulatory effect on cyclin D1 expression resulting in blockage of neuronal apoptosis elicited by SRPK2. Negative regulator of signaling cascades that mediate activation of MAP kinases via AKAP13.