

## Basic Information

|                    |                                                                                                                                                                                                                                                                                                                                                                                   |                                                  |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| Product Name       | Anti-14-3-3 Epsilon/YWHAE Antibody                                                                                                                                                                                                                                                                                                                                                |                                                  |
| Gene Name          | YWHAE                                                                                                                                                                                                                                                                                                                                                                             |                                                  |
| Source             | Rabbit                                                                                                                                                                                                                                                                                                                                                                            |                                                  |
| Clonality          | Polyclonal                                                                                                                                                                                                                                                                                                                                                                        |                                                  |
| Isotype            | IgG                                                                                                                                                                                                                                                                                                                                                                               |                                                  |
| Species Reactivity | human, mouse, rat                                                                                                                                                                                                                                                                                                                                                                 |                                                  |
| Tested Application | WB, IHC, ICC/IF, ELISA                                                                                                                                                                                                                                                                                                                                                            |                                                  |
| Contents           | 500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.                                                                                                                                                                                                                                                                                                            |                                                  |
| Immunogen          | E.coli-derived human YWHAE recombinant protein (Position: Q16-L163).                                                                                                                                                                                                                                                                                                              |                                                  |
| Concentration      | 500 ug/ml                                                                                                                                                                                                                                                                                                                                                                         |                                                  |
| Purification       | Immunogen affinity purified.                                                                                                                                                                                                                                                                                                                                                      |                                                  |
| Observed MW        | 29 kDa                                                                                                                                                                                                                                                                                                                                                                            |                                                  |
| Dilution Ratios    | Western blot (WB):<br>Immunohistochemistry (IHC):<br>Immunocytochemistry/Immunofluorescence (ICC/IF):<br>Enzyme linked immunosorbent assay (ELISA):<br>(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user. | 1:500-2000<br>1:50-400<br>1:50-400<br>1:100-1000 |

## Storage

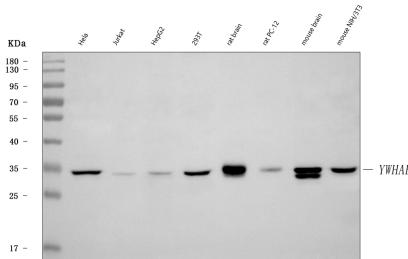
12 months from date of receipt, -20°C as supplied.

## Background Information

14-3-3 protein epsilon is a protein that in humans is encoded by the YWHAE gene. This gene product belongs to the 14-3-3 family of proteins which mediate signal transduction by binding to phosphoserine-containing proteins. This highly conserved protein family is found in both plants and mammals, and this protein is 100% identical to the mouse ortholog. It interacts with CDC25 phosphatases, RAF1 and IRS1 proteins, suggesting its role in diverse biochemical activities related to signal transduction, such as cell division and regulation of insulin sensitivity. It has also been implicated in the pathogenesis of small cell lung cancer. Two transcript variants, one protein-coding and the other non-

protein-coding, have been found for this gene.

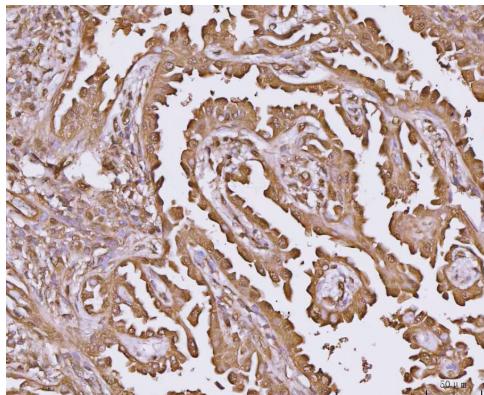
## Selected Validation Data



Western blot analysis of 14-3-3 Epsilon/YWHAE using anti-14-3-3 Epsilon/YWHAE antibody (A01687-5). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

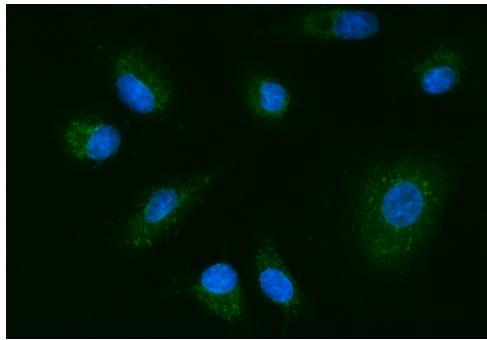
Lane 1: Hela whole cell lysates,  
Lane 2: Jurkat whole cell lysates,  
Lane 3: HepG2 whole cell lysates,  
Lane 4: 293T whole cell lysates,  
Lane 5: rat brain tissue lysates,  
Lane 6: rat PC-12 whole cell lysates,  
Lane 7: mouse brain tissue lysates,  
Lane 8: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-14-3-3 Epsilon/YWHAE antigen affinity purified polyclonal antibody (A01687-5) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for 14-3-3 Epsilon/YWHAE at approximately 29 kDa. The expected band size for 14-3-3 Epsilon/YWHAE is at 29 kDa.



IHC analysis of 14-3-3 Epsilon/YWHAE using anti-14-3-3 Epsilon/YWHAE antibody (A01687-5).

14-3-3 Epsilon/YWHAE was detected in a paraffin-embedded section of human lung cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-14-3-3 Epsilon/YWHAE Antibody (A01687-5) at a dilution of 1:200 and developed using Strepavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of 14-3-3 Epsilon/YWHAE using anti-14-3-3 Epsilon/YWHAE antibody (A01687-5).

14-3-3 Epsilon/YWHAE was detected in an immunocytochemical section of A549 cells. Fluoro488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).