**Product datasheet**

**Anti-Dynamin 3 antibody ab3458**

**Product name**  
Anti-Dynamin 3 antibody

**Description**  
Rabbit polyclonal to Dynamin 3

**Host species**  
Rabbit

**Tested applications**  
Suitable for: WB, IHC-P, ICC/IF

**Species reactivity**  
Reacts with: Mouse, Rat, Human

**Immunogen**  
Synthetic peptide corresponding to Rat Dynamin 3 aa 623-639. 
Sequence: PDKSFTENDENGQAENF

(Peptide available as ab4986)

**Form**  
Liquid

**Storage instructions**  
Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

**Storage buffer**  
Preservative: 0.05% Sodium azide 
Constituents: 0.1% BSA, 99% PBS

**Purity**  
Immunogen affinity purified

**Primary antibody notes**  
The dynamins are a family of 100 kDa GTPases transcribed from at least three separate genes. At least four mRNA splice variants for each dynamin have been described. Dynamins contain several conserved regions including the conserved, amino-terminal GTPase domain, a centrally located membrane-binding plekstrin homology domain (PHD), and a coiled-coil region located in front of a proline-rich domain (PRD). The PRD is thought to mediate interactions between dynamin and numerous other cellular proteins. Dynamin 1 is expressed exclusively in neurons, Dynamin 2 is ubiquitously expressed, and Dynamin 3 is thought to be restricted to expression in the brain, testis, heart, and lung. The dynamins participate in the cellular process of clathrin-mediated and fluid-phase endocytosis.

**Clonality**  
Polyclonal

**Isotype**  
IgG
Applications

Our Abpromise guarantee covers the use of ab3458 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>WB</td>
<td>⭐⭐⭐⭐⭐</td>
<td>Use at an assay dependent concentration. Can be blocked with Dynamin 3 peptide (ab4986). By Western blot, this antibody detects an ~100 kDa protein representing Dynamin 3 from HeLa cell lysate.</td>
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<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 4 µg/ml.</td>
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<tr>
<td>ICC/IF</td>
<td>⭐⭐⭐⭐</td>
<td>Use a concentration of 1 µg/ml.</td>
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Target

Function
Microtubule-associated force-producing protein involved in producing microtubule bundles and able to bind and hydrolyze GTP. Most probably involved in vesicular trafficking processes, in particular endocytosis.

Sequence similarities
Belongs to the TRAFAC class dynamin-like GTPase superfamily. Dynamin/Fzo/YdjA family.
Contains 1 dynamin-type G (guanine nucleotide-binding) domain.
Contains 1 GED domain.
Contains 1 PH domain.

Cellular localization

Images

Western blot of Dynamin 3 on rat liver extract using ab3458.
ab3458 (4µg/ml) staining Dynamin 3 in human brain cerebellum using an automated system (DAKO Autostainer Plus). Using this protocol there is strong staining of nuclear/cytoplasmic compartments within the white matter region. Sections were rehydrated and antigen retrieved with the Dako 3 in 1 AR buffer citrate pH 6.1 in a DAKO PT link. Slides were peroxidase blocked in 3% H2O2 in methanol for 10 mins. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 min and detected with Dako envision flex amplification kit for 30 minutes. Colorimetric detection was completed with Diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that, for manual staining, optimization of primary antibody concentration and incubation time is recommended. Signal amplification may be required.

ICC/IF image of ab3458 stained HeLa cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab3458, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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