

**Datasheet for 810-4102****Fab Mouse IgG (H&L) Antibody****Overview**

|                      |                                                     |
|----------------------|-----------------------------------------------------|
| <b>Description:</b>  | Rabbit Fab Anti-Mouse IgG (H&L) Antibody - 810-4102 |
| <b>Item No.:</b>     | 810-4102                                            |
| <b>Size:</b>         | 500 µg                                              |
| <b>Applications:</b> | IF                                                  |
| <b>Reactivity:</b>   | Mouse                                               |
| <b>Host Species:</b> | Rabbit                                              |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Fab Anti-Mouse IgG (H&L) Antibody generated in rabbit detects Mouse IgG. This product possesses the F(ab) region possessing the epitope-recognition site, both heavy and light chains of the antibody molecule are present. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition. |
| <b>Synonyms:</b>     | Rabbit Fab Anti-Mouse IgG Antibody, Rabbit Fab Fragment Anti-Mouse IgG Antibody                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Specificity:</b>  | IgG (H&L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Format:</b>       | IgG Fab                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

**Target Details**

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity:</b>         | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Immunogen:</b>          | Mouse IgG whole molecule                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Purity/Specificity:</b> | This product was prepared from monospecific antiserum by immunoaffinity chromatography using Mouse IgG coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities, papain digestion and chromatographic separation. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit Serum. No reaction was observed against anti-Papain or anti-Rabbit IgG F(c). |

## Application Details

|                                |                                                                                                                                                                                     |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suggested Applications:</b> | IF (Based on references)                                                                                                                                                            |
| <b>Application Note:</b>       | Suitable for highly specific immunological methods requiring extremely low background levels, absence of F(c) mediated binding, lot-to-lot consistency, high titer and specificity. |
| <b>Assay Dilutions:</b>        | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                     |
| <b>ELISA:</b>                  | 1:20,000 - 1:100,000                                                                                                                                                                |
| <b>IHC:</b>                    | 1:1,000 - 1:5,000                                                                                                                                                                   |
| <b>WB:</b>                     | 1:2,000 - 1:10,000                                                                                                                                                                  |

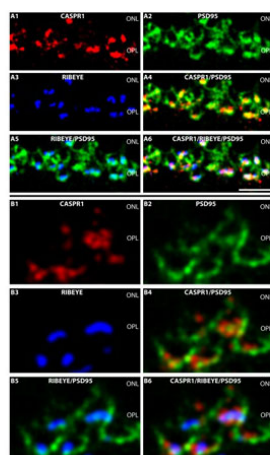
## Formulation

|                        |                                                            |
|------------------------|------------------------------------------------------------|
| <b>Physical State:</b> | Liquid (sterile filtered)                                  |
| <b>Concentration:</b>  | 1.0 mg/mL by UV absorbance at 280 nm                       |
| <b>Buffer:</b>         | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| <b>Preservative:</b>   | 0.01% (w/v) Sodium Azide                                   |
| <b>Stabilizer:</b>     | None                                                       |

## Shipping & Handling

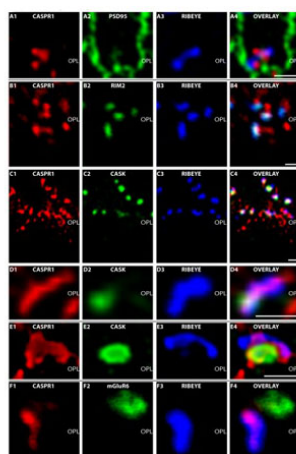
|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Shipping Condition:</b> | Wet Ice                                                                                                                         |
| <b>Storage Condition:</b>  | Store vial at 4° C prior to opening. This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                           |

## Images



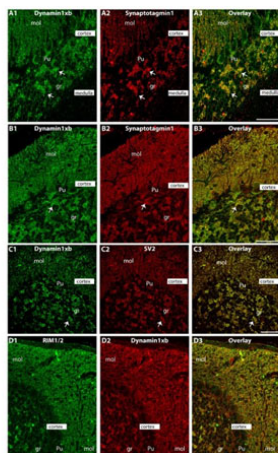
### Immunofluorescence Microscopy

Confocal images of semi-thin sections of the mouse retina triple-immunolabelled with mouse monoclonal antibodies against CASPR1, rabbit polyclonal antibodies against PSD-95 (L667) and rabbit polyclonal antibodies against RIBEYE (U2656), as described in the Materials and Methods section. In A4, A4 and B4, B5 the indicated two immunosignals are overlaid on each other; in A6, B6, all three immunosignals were overlaid on each other. ONL, outer nuclear layer; OPL, outer plexiform layer. Scale bars: 2µm. Figure S7. PMID: 30266776.



### Immunofluorescence Microscopy

CASPR1 is located pre-synaptically in close vicinity to the synaptic ribbon. A) High resolution confocal analysis of rod photoreceptor synapses in the OPL of the mouse retina (0.5µm-thin sections) that were triple-immunolabelled with the rabbit polyclonal antibody against CASPR1, mouse monoclonal antibody 2D9 against RIBEYE and the indicated third primary antibodies (A-F). In (A), the outline of a single presynaptic terminal was visualized by immunolabelling with antibodies against PSD95 (A2). The CASPR1 immunosignal is located within the presynaptic terminal in close vicinity to the synaptic ribbon. Furthermore, presynaptic CASPR1 was found in close vicinity to the active zone markers RIM2 (B) and CASK (C,D,E). In contrast, the CASPR1 signal did not overlap with the postsynaptic signal for mGluR6 that is localized at the tip of invaginating ON-bipolar cells that are located also in close vicinity to the synaptic ribbon (Appendix Fig. S8F). Appendix Figs. S8B,C,D,F were obtained by confocal microscopy; Appendix Figs. S8A,E by super-resolution structured illumination-microscopy (SR-SIM). OPL, outer plexiform layer; INL, inner nuclear layer; IPL, inner plexiform layer. Scale bars: 1µm (A-F). Fig S8. PMID: 30266776.



### Immunofluorescence Microscopy

Semi-thin (0.5  $\mu\text{m}$ -thin) sections of the mouse cerebellum double-immunolabeled with the monoclonal dynamin1xb antibody and the indicated other primary antibodies. The other primary antibodies against synaptotagmin1 (A,B), synaptic vesicle protein 2 (SV2; C) and RIM1/2 (D) were applied to label the synapses in order to better relate the dynamin1xb immunosignals to the synaptic regions. We observed a strong dynamin1xb immunosignal in the cerebellar cortex whereas the cerebellar medulla (white matter) that contains predominantly fiber tracts (but no synapses) was not immunolabeled. In the cerebellar cortex, dynamin1xb was highly enriched in the synaptic regions, i.e., the molecular layer (mol) of the cerebellar cortex and the giant synapses in the granule cell layer (arrows) of the cerebellar cortex. No significant dynamin1xb immunosignal was observed in the medulla of the cerebellum that predominantly contains axonal fiber tracts. (A,B,D) was obtained by epifluorescence microscopy; (C) was obtained by confocal microscopy. Abbreviations: mol, molecular layer; Pu, Purkinje cell layer; gr, granule cell layer. Scale bars: 50  $\mu\text{m}$  (A–D). Fig 5. PMID: 28790889.

## References

- Dembla et al. Early auto-immune targeting of photoreceptor ribbon synapses in mouse models of multiple sclerosis. *EMBO Molecular Medicine* (2018)
- Eich et al. The Calcineurin-Binding, Activity-Dependent Splice Variant Dynamin1xb Is Highly Enriched in Synapses in Various Regions of the Central Nervous System. *Frontiers in Molecular Neuroscience* (2017)

## Disclaimer

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