# Product datasheet

## anti-Synaptopodin/SYNPO (C-terminus) guinea pig polyclonal, serum

### Short overview

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| **Cat. No.** | GP94-C |
| **Quantity** | 100 µl |

### Product description

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|---|---|
| **Host** | Guinea pig |
| **Antibody Type** | Polyclonal |
| **Immunogen** | Synthetic peptides (mouse C-terminus), coupled to KLH |
| **Formulation** | Contains 0.09% sodium azide and 0.5% BSA |
| **UniprotID** | Q8N3V7 (Human),Q91YE8 (Mouse) |
| **Synomym** | Synaptopodin, SYNPO, KIAA1029 |
| **Note** | Centrifuge prior to opening |
| **Conjugate** | Unconjugated |
| **Purification** | Stabilized antiserum |
| **Storage** | Short term at 2-8°C; long term storage in aliquots at -20°C; avoid freeze/thaw cycles |
| **Intended use** | Research use only |
| **Application** | ICC/IF, IHC, WB |
| **Reactivity** | Human, Mouse |

### Applications

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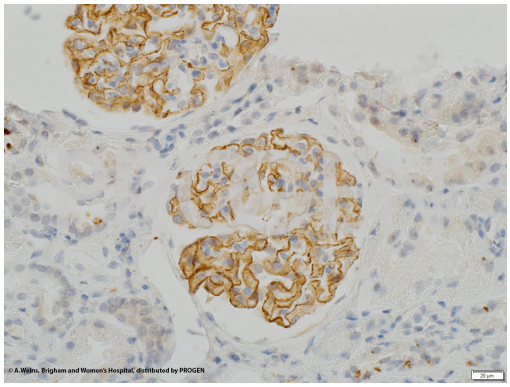
| **Immunocytochemistry (ICC)** | Assay dependent |
| **Immunohistochemistry (IHC) - frozen** | 1:50-1:100 |
| **Immunohistochemistry (IHC) - paraffin** | 1:50-1:100 (microwave treatment recommended) |
| **Western Blot (WB)** | 1:500 |

### Background

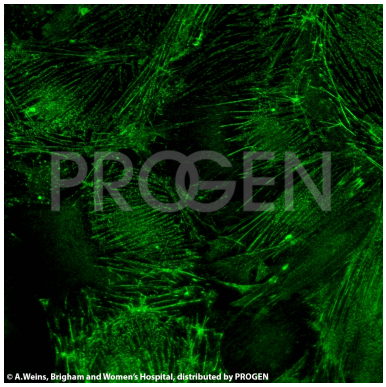
The antibody reacts specifically with the C-terminus of synaptopodin/SYNPO, a prolin-rich actin-binding protein with 2 binding sites for actin. Synaptopodin belongs to actin-binding proteins, it has first been localized in podocytes and a subset of telencephalic postsynaptic densities. In human tissue synaptopodin has a molecular weight of 73.7 kD and pI of 9.38 (calculated from sequence data); in mouse the corre-sponding data are 74 kD, pI 9.27. In SDS-PAGE the antigen appears as 100 kD polypeptide in brain and 110 kD polypeptide in kidney (attributed to posttransla-tional modifications). In Western blot analysis the antibody also reacts with a 44 kD degradation fragment of synaptopodin.

The antibody recognizes differentiated podocytes (glomerular visceral epithelial cells) in vivo and in vitro (weaker additional reaction with arterial endothelial cells), co-localization with alpha-actinin.Reacts with a subset of exclusively telencephalic synapses. Differentiation-dependent expression during postnatal maturation of murine brain. Differentiation-dependent expression in cultured hippocampal neurons.

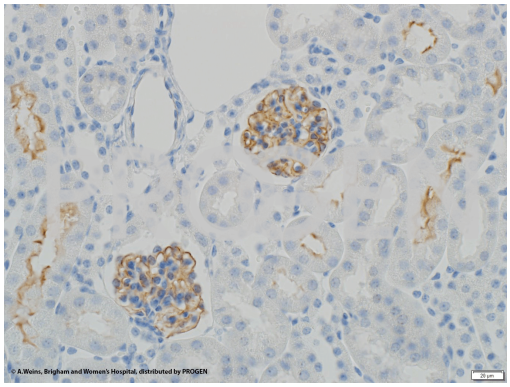
### Product images




Synaptopodin staining in human glomeruli (GP94-C; dilution 1:50;  Image courtesy of A.Weins, Brigham and Women's Hospital)




Synaptopodin immunoflurescence staining in human podocytes. (Image courtesy of A.Weins, Brigham and Women's Hospital).




Synaptopodin staining in human glomeruli (GP94-C; dilution 1:100;  Image courtesy of A.Weins, Brigham and Women's Hospital)

## References

| Publication | Species | Application |
|---|---|---|
| Siegerist, F. et al. Novel Microscopic Techniques for Podocyte Research. Front.Endocrinol.(Lausanne). 9, 379 (2018). | mouse,rat | IHC-IF (paraffin) |