

## Collybistin

Cat.No. 261 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

### Data Sheet

Reconstitution/ Storage	50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Rabbit serum albumin was added for stabilization. For reconstitution add 50 µl H <sub>2</sub> O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
Applications	<b>WB:</b> 1 : 1000 up to 1 : 2000 <b>IP:</b> yes <b>ICC:</b> 1 : 500 <b>IHC:</b> yes <b>IHC-P/FFPE:</b> not tested yet
Immunogen	Recombinant protein corresponding to AA 4 to 229 from rat Collybistin (UniProt Id: Q9QX73)
Reactivity	Reacts with: rat (Q9QX73), mouse (Q3UTH8). Other species not tested yet.
Specificity	Specific for collybistin; immunogen present in all three described splice-variants (K.O. verified)

**TO BE USED IN VITRO / FOR RESEARCH ONLY**  
**NOT TOXIC, NOT HAZARDOUS, NOT INFECTIOUS, NOT CONTAGIOUS**

The GDP/GTP-exchange factor **collybistin** is composed of a dbl homology domain (DH) and a pleckstrin homology domain (PH) connected by a linker sequence. Three splice variants with different C-terminal regions have been described, so far. Collybistin is supposed to be involved in the clustering of gephyrin, a scaffolding protein linking glycine and GABA receptors to microtubuli.

### Selected References SYSY Antibodies

Gephyrin clusters are absent from small diameter primary afferent terminals despite the presence of GABA(A) receptors. Lorenzo LE, Godin AG, Wang F, St-Louis M, Carbonetto S, Wiseman PW, Ribeiro-da-Silva A, De Koninck Y. The Journal of neuroscience : the official journal of the Society for Neuroscience (2014) 34(24): 8300-17. **IHC**

A conformational switch in collybistin determines the differentiation of inhibitory postsynapses. Soykan T, Schneeberger D, Tria G, Buechner C, Bader N, Svergun D, Tessmer I, Pouloupos A, Papadopoulos T, Varoqueaux F, Schindelin H, et al. The EMBO journal (2014) 33(18): 2113-33. **WB**

In vivo transgenic expression of collybistin in neurons of the rat cerebral cortex. Fekete CD, Goz RU, Dinallo S, Miralles CP, Chiou TT, Bear J, Fiondella CG, LoTurco JJ, De Blas AL. The Journal of comparative neurology (2017) 525(5): 1291-1311. **IHC; tested species: rat**

Collybistin binds and inhibits mTORC1 signaling: a potential novel mechanism contributing to intellectual disability and autism. Machado CO, Griesi-Oliveira K, Rosenberg C, Kok F, Martins S, Passos-Bueno MR, Sertie AL. European journal of human genetics : EJHG (2016) 24(1): 59-65. **WB**

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### Selected General References

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Increased network excitability and impaired induction of long-term potentiation in the dentate gyrus of collybistin-deficient mice in vivo.

Jedlicka P, Papadopoulos T, Deller T, Betz H, Schwarzacher SW. Molecular and cellular neurosciences (2009) 41(1): 94-100.

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Collybistin, a newly identified brain-specific GEF, induces submembrane clustering of gephyrin. Kins S, Betz H, Kirsch J. Nature neuroscience (2000) 3(1): 22-9.