

Anti-PDE6a Antibody, clone 7A11.1 clone 7A11.1, from mouse

Art. ID	SAF-MABN2250-25UG
Unit	1 x 25 µg
Deliverydetails	No Dangerous Good

Description

Rod cGMP-specific 3',5'-cyclic phosphodiesterase subunit alpha (UniProt: P16499, also known as EC: 3.1.4.35, cGMP-PDE alpha, PDE V-B1) is encoded by the PDE6A (also known as PDEA) gene (Gene ID: 5145) in human. cGMP-PDE alpha is expressed in cells of the retinal rod outer segment. cGMP-PDE participates in processes of transmission and amplification of the visual signal. This holoenzyme is a heterotrimer composed of an alpha, beta, and two gamma subunits. cGMP is an important regulator of rod cell membrane current, and its dynamic concentration is established by cGMP-PDE alpha, cGMP hydrolysis, and guanylate cyclase cGMP synthesis. cGMP-PDE alpha has five metal ion binding sites that bind two divalent metal cations per subunit. Site 1 preferentially binds zinc ions, while site 2 has a preference for magnesium and/or manganese ions. cGMP-PDE alpha has two GAF domains (aa 73-222 GAF1 and aa 254-431 GAF2). Mutations in PDE6A gene have been linked to retinitis pigmentosa that is characterized by retinal pigment deposits visible on fundus examination and primary loss of rod photoreceptor cells followed by secondary loss of cone photoreceptors.