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Anti-phospho-Neph1 (Tyr637/638) Antibody from rabbit, purified by affinity chromatography

Art. ID	SAF-ABS1509
Unit	EA

Description

Kin of IRRE-like protein 1 (UniProt Q80W68, also known as Nephrin-like protein 1, Kin of IRRE like 1, Kin of irregular chiasm-like protein 1) is encoded by the Kirrel (also known as 6720469N11Rik, Kirrel1, Neph1) gene (Gene ID 170643) in murine species. Podocytes are specialized epithelial cells that are critical components of the glomerular filtration barrier. Glomerular injury, such as that caused by renal ischemia, is often characterized by the effacement of podocytes, loss of slit diaphragms, and proteinuria. The podocyte proteins Neph1 and nephrin are critical for maintaining the structural integrity of slit diaphragm and therefore the filtration function of the glomerulus by organizing a signaling complex at the podocyte cell membrane. The cytoplasmic domain of Neph1 plays a key role in actin cytoskeleton remodeling events that are directly associated with Fyn-mediated Neph1 pTyr637/638 phosphorylation that leads to the recruitment of adapter proteins and signaling molecules, such as Grb2, Csk tyrosine kinase, and ZO-1. Phosphorylation-induced association between Neph1 and ZO-1 plays a key role in defining the tight junction formation in podocytes.