
Recombinant Human OXSR1 / OSR1 Protein (GST tag)**Cat.NO.: TP08503**

3th Edition

Synonyms:OSR1

Description:Oxidative stress-responsive 1 protein (OXSR1), also known as Serine/threonine-protein kinase OSR1, is a member of the Ser/Thr protein kinase family of proteins. OXSR1 regulates downstream kinases in response to environmental stress, and may play a role in regulating the actin cytoskeleton. OXSR1 is a 58 kDa protein of 527 amino acids that is widely expressed in mammalian tissues and cell lines. The amino acid (aa) sequence of the predicted OXSR1 protein is 39% identical to that of human SOK1. Of potential regulators surveyed, endogenous OXSR1 is activated only by osmotic stresses, notably sorbitol and to a lesser extent NaCl. OXSR1 did not increase the activity of coexpressed JNK, nor did it activate three other MAPKs, p38, ERK2, and ERK5. Phosphorylation by OXSR1 modulates the G protein sensitivity of PAK isoforms. The OXSR1 and SPAK are key enzymes in a signalling cascade regulating the activity of Na⁺/K⁺/2Cl⁻ co-transporters (NKCCs) in response to osmotic stress. Both kinases have a conserved carboxy-terminal (CCT) domain, which recognizes a unique peptide (Arg-Phe-Xaa-Val) motif. The OXSR1 and SPAK kinases specifically recognize their upstream activators and downstream substrates.

Form:PBS**Molecular Weight:**84 kDa**Sequences:**Met 1-Ser 527**Purity:**> 95% by HPLC**Concentration:****Endotoxin Level:**<1.0 EU per 1 ug of protein (determined by LAL method)**Storage:**Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.