

Recombinant Human PAK3 Protein (His tag)

Cat.NO.: TP08489

3th Edition

Synonyms:bPAK;CDKN1A;hPAK3;MRX30;MRX47;OPHN3;PAK3beta

Description:PAK3 is a member of PAK proteins, a family of serine/threonine p21-activating kinases, serve as effectors of small Rho GTPases Cdc42 and RAC and have been implicated in a wide range of biological activities. There are six mammalian PAKs which can be divided into two groups: group I PAKs (PAK1-3) and group II PAKs (PAK4-6). Although the two PAK groups are architecturally similar there are differences in their mode of regulation suggesting their cellular functions are likely to be different. Group I p21-activated kinases (PAK1/2/3) is demonstrated as ERK3/ERK4 activation loop kinases. It has been shown that group I PAKs phosphorylate ERK3 and ERK4 on Ser-189 and Ser-186, respectively, both in vitro and in vivo, and that expression of activated Rac1 augments this response. Besides regulation enzymatic activation of ERK3/ERK4, PAKs can also play roles in downstream activation of MAP kinase-activated protein kinase 5 (MK5) in vivo. Thus, the group I PAKs act as upstream activators of ERK3 and ERK4 and unravel a novel PAK-ERK3/ERK4-MK5 signaling pathway. In clinical, PAK has been proposed as a potential therapeutic target in schwannomas.

Form:PBS**Molecular Weight:**62 kDa**Sequences:**Met 1-Arg 544**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.