

## 32-2641: PAICS Recombinant Protein

**Alternative Name :** PAICS, Phosphoribosylaminoimidazole Carboxylase Phosphoribosylaminoimidazole, Succinocarboxamide Synthetase, PAIS, AIRC, ADE2, ADE2H1, AIR Carboxylase, Multifunctional Protein ADE2, Multifunctional Protein ADE2H1, SAICAR Synthetase.

### Description

Source : E.coli. PAICS Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 448 amino acids (1-425) and having a molecular mass of 49.5kDa. PAICS is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques. Phosphoribosylaminoimidazole Carboxylase (PAICS) is an enzyme involved in nucleotide biosynthesis and particularly in purine biosynthesis. PAICS is a bifunctional enzyme containing phosphoribosylaminoimidazole carboxylase activity at its N-terminal region and phosphoribosylaminoimidazole succinocarboxamide synthetase at its C-terminal region. PAICS catalyzes the conversion of 5'-phosphoribosyl-5-aminoimidazole(AIR) into 5'-phosphoribosyl-4-carboxy-5-aminoimidazole (CAIR) as described in the reaction. PAICS catalyzes steps six and seven of purine biosynthesis.

### Product Info

**Amount :** 20 µg  
**Purification :** Greater than 90% as determined by SDS-PAGE.  
**Content :** The PAICS solution (0.25mg/ml) contains 20mM Tris-HCl buffer (pH8.0), 20% glycerol, 0.1M NaCl and 1mM DTT.  
**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.  
**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MGSMTAEVL NIGKKLYEGK TKEYYELLS PGKVLLQSKD QITAGNAARK NHLEGKAAIS NKITSCIFQL LQEAGIKTAF TRKCGETAFI APQCEMIPIE WVCRRITGS FLKRNPVGVE GYKFYPPKVE LFFKDDANND PQWSEEQLIA AKFCFAGLLI GQTEVDIMSH ATQAI FEILE KSWLPQNCTL VDMKIEFGVD VTTKEIVLAD VIDNSWRLW PSGDRSQKD KQSYRDLKEV TPEGLQMVKK NFEWVAERVE LLLKSESQCR VVLMGSTSD LGHCEKIKKA CGNFGIPCEL RV TSAHKGPD ETLRIKAEYE GDGIPTVFVA VAGRSNGLGP VM SGN TAYPV ISCPPLTPDW GVQDVWSSLR LPSGLGCSTV LSPEGSAQFA AQIFGLSNHL VWSKLRASIL NTWISLKQAD KKIRECNL.

