

## Immunotag™ RSK1 p90 Antibody

| Antibody Specification |  |
|------------------------|--|
| Catalog No.            | ITA7707  |
| Product Description    | Immunotag™ RSK1 p90 Antibody   |
| Size                   | 100 µg, 200 µg   |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647                                      |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return. |
| Target Protein         | RSK1 p90   |
| Clonality              | Polyclonal   |
| Storage/Stability      | -20°C/1 year   |
| Application            | WB,IF/ICC,ELISA  |
| Recommended Dilution   | WB 1:1000-3000, IF/ICC 1:100-1:500   |
| Concentration          | 1 mg/ml  |
| Reactive Species       | Human,Mouse,Rat  |
| Host Species           | Rabbit   |
| Immunogen              | A synthesized peptide derived from human RSK1 p90  |
| Specificity            | RSK1 p90 Antibody detects endogenous levels of total RSK1 p90  |
| Purification           | The antiserum was purified by peptide affinity chromatography.   |
| Form                   | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt        |
| Gene Name              | RPS6KA1  |
| Accession No.          | Q15418   |

## Antibody Specification

|                           |   |
|---------------------------|---|
| Alternate Names           | 90 kDa ribosomal protein S6 kinase 1; dj590P13.1 (ribosomal protein S6 kinase, 90kD, polypeptide 1; dj590P13.1; EC 2.7.11.1; HU 1; HU1; KS6A1_HUMAN; MAP kinase activated protein kinase 1a; MAP kinase-activated protein kinase 1a; MAPK-activated protein kinase 1a; MAPKAP kinase 1a; MAPKAPK-1a; MAPKAPK1A; MGC79981; Mitogen-activated protein kinase-activated protein kinase 1A; OTTHUMP00000004113; p90 RSK1; p90-RSK 1; p90rsk; p90RSK1; p90S6K; pp90RSK1; Ribosomal protein S6 kinase 90kD 1; Ribosomal protein S6 kinase 90kD polypeptide 1; Ribosomal protein S6 kinase 90kDa polypeptide 1; Ribosomal protein S6 kinase alpha 1; Ribosomal protein S6 kinase alpha-1; Ribosomal protein S6 kinase polypeptide 1; Ribosomal S6 kinase 1; RPS6K1 alpha; rps6ka; Rps6ka1; RSK 1; RSK 1 p90; RSK; RSK-1; RSK1; S6K alpha 1; S6K-alpha-1;   |
| Description               | Serine/threonine-protein kinase that acts downstream of ERK (MAPK1/ERK2 and MAPK3/ERK1) signaling and mediates mitogenic and stress-induced activation of the transcription factors CREB1, ETV1/ER81 and NR4A1/NUR77, regulates translation through RPS6 and EIF4B phosphorylation, and mediates cellular proliferation, survival, and differentiation by modulating mTOR signaling and repressing pro-apoptotic function of BAD and DAPK1. In fibroblast, is required for EGF-stimulated phosphorylation of CREB1, which results in the subsequent transcriptional activation of several immediate-early genes. In response to mitogenic stimulation (EGF and PMA), phosphorylates and activates NR4A1/NUR77 and ETV1/ER81 transcription factors and the cofactor CREBBP. Upon insulin-derived signal, acts indirectly on the transcription regulation of several genes by phosphorylating GSK3B at 'Ser-9' and inhibiting its activity. Phosphorylates RPS6 in response to serum or EGF via an mTOR-independent mechanism and promotes translation initiation by facilitating assembly of the pre-initiation complex. In response to insulin, phosphorylates EIF4B, enhancing EIF4B affinity for the EIF3 complex and stimulating cap-dependent translation. Is involved in the mTOR nutrient-sensing pathway by directly phosphorylating TSC2 at 'Ser-1798', which potently inhibits TSC2 ability to suppress mTOR signaling, and mediates phosphorylation of RPTOR, which regulates mTORC1 activity and may promote rapamycin-sensitive signaling independently of the PI3K/AKT pathway. Mediates cell survival by phosphorylating the pro-apoptotic proteins BAD and DAPK1 and suppressing their pro-apoptotic function. Promotes the survival of hepatic stellate cells by phosphorylating CEBPB in response to the hepatotoxin carbon tetrachloride (CCl4). Mediates induction of hepatocyte proliferation by TGFA through phosphorylation of CEBPB (By similarity). Is involved in cell cycle regulation by phosphorylating the CDK inhibitor CDKN1B, which promotes CDKN1B association with 14-3-3 proteins and prevents its translocation to the nucleus and inhibition of G1 progression. Phosphorylates EPHA2 at 'Ser-897', the RPS6KA-EPHA2 signaling pathway controls cell migration (PubMed:26158630). |
| Cell Pathway/<br>Category | Primary Polyclonal Antibody   |
| Protein MW                | 90 kDa  |
| Usage                     | For Research Use Only! Not for diagnostic or therapeutic procedures.  |