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# IQSEC1 Antibody

Catalog # ASC11864

## Product Information

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| **Application** | WB, ICC, E |
| **Primary Accession** | Q6DN90 |
| **Other Accession** | NP_055684, 50582989 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Calculated MW** | 108314 |
| **Concentration (mg/ml)** | 1 mg/mL |
| **Conjugate** | Unconjugated |
| **Application Notes** | IQSEC1 antibody can be used for detection of IQSEC1 by Western blot at 1 - 2 g/ml. Antibody can also be used for immunocytochemistry at 10 g/ml. |

## Additional Information

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| **Gene ID** | 9922 |
| **Other Names** | IQ motif and SEC7 domain-containing protein 1, ADP-ribosylation factors guanine nucleotide-exchange protein 100, ADP-ribosylation factors guanine nucleotide-exchange protein 2, Brefeldin-resistant Arf-GEF 2 protein, IQSEC1, ARFGEP100, BRAG2, KIAA0763 |
| **Target/Specificity** | IQSEC1; IQSEC1 antibody is human, mouse and rat reactive. At least four isoforms of IQSEC1 are known to exist. IQSEC1 antibody is predicted to not cross-react with IQSEC2. |
| **Reconstitution & Storage** | IQSEC1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. |
| **Precautions** | IQSEC1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | IQSEC1 ( HGNC:29112) |
| **Function** | Guanine nucleotide exchange factor for ARF1 and ARF6 (PubMed: 11226253, PubMed:24058294). Guanine nucleotide exchange factor activity is enhanced by lipid binding (PubMed:24058294). Accelerates GTP binding by ARFs of all three classes. Guanine nucleotide exchange protein for ARF6, mediating internalization of beta-1 integrin (PubMed:16461286). Involved in neuronal development (Probable). In neurons, plays a role in the control of vesicle formation by endocytoc cargo. Upon long term depression, interacts with GRIA2 and mediates the activation of ARF6 to internalize synaptic AMPAR |

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| | receptors (By similarity). |
| **Cellular Location** | Cytoplasm. Nucleus. Postsynaptic density {ECO:0000250\|UniProtKB:Q8R0S2}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle {ECO:0000250\|UniProtKB:Q8R0S2}. Note=At steady state, may be preferentially cytosolic |
| **Tissue Location** | Expressed in brain, ovary, heart, lung, liver, kidney and leukocytes. Moderate expression was also detected in lung, skeletal muscle, placenta, small intestine, pancreas, spleen and testis. |

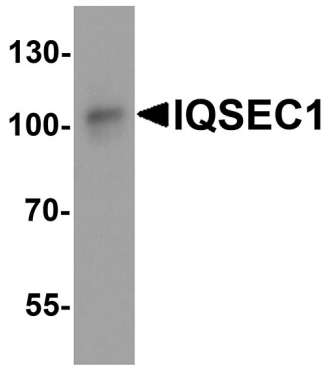
## Background

ADP ribosylation factors (Arfs) are small GTP-binding proteins known for their role in vesicular transport, where they nucleate the assembly of coat protein complexes at sites of carrier vesicle formation. IQSEC1 (GEP100/BRAG2), a guanine nucleotide exchange protein for ARF6, belongs to the BRAG family and contains one IQ domain, one PH domain and one SEC7 domain (1). As a known activator of ARF6, IQSEC1 regulates cell surface levels of Beta1 integrin and its knockdown blocked tumour metastasis (2,3). IQSEC1 links EGFR signaling to ARF6 activation and may contribute to the cancer metastasis and malignancy (4).

## References

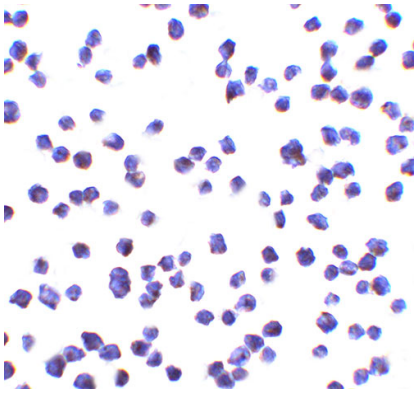

Someya A, Sata M, Takeda K, et al. ARF-GEP(100), a guanine nucleotide-exchange protein for ADP-ribosylation factor 6. Proc. Natl. Acad. Sci. U.S.A. 2001; 98:2413-8.
Dunphy JL, Moravec R, Ly K, et al. The Arf6 GEF GEP100/BRAG2 regulates cell adhesion by controlling endocytosis of beta1 integrins. Curr. Biol. 2006; 16:315-20.
Moravec R, Conger KK, D'Souza R, et al. BRAG2/GEP100/IQSec1 interacts with clathrin and regulates a5B1 integrin endocytosis through activation of ADP ribosylation factor 5 (Arf5). J. Biol. Chem. 2012; 287:31138-47.
Hu Z, Du J, Yang L, et al. GEP100/Arf6 is required for epidermal growth factor-induced ERK/Rac1 signaling and cell migration in human hepatoma HepG2 cells. PLoS One 2012; 7:e38777.


## Images




Western blot analysis of IQSEC1 in A20 cell lysate with IQSEC1 antibody at 1 µg/ml.

Immunocytochemistry of IQSEC1 in A-20 cells with IQSEC1 antibody at 10 µg/ml.



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