The elongation factor-1 complex is composed of two subunits, EF-1 α1 (elongation factor 1α1) and EF-1 α2 (elongation factor 1α2), and is responsible for the delivery of aminoacyl tRNAs to the ribosome. EF-1 α1 is expressed predominately in brain, placenta, lung, liver, kidney and pancreas, while EF-1 α2 is highly expressed in heart, brain and skeletal muscle. Both EF-1 α1 and α2 localize to the nucleus and belong to the GTP-binding elongation factor family. The gene encoding EF-1 α2, which maps to human chromosome 20q13.33, may play a role in the development of ovarian cancer, while the EF-1 α1 gene, mapping to chromosome 6q13, is commonly present as an autoantigen in patients with Felty syndrome. Felty syndrome is a disorder characterized by rheumatoid arthritis, a swollen spleen, decreased white blood cell count, and increased susceptibility to infection.

**CHROMOSOMAL LOCATION**

Genetic locus: EEF1A1 (human) mapping to 6q13, EEF1A2 (human) mapping to 20q13.33; Eef1α1 (mouse) mapping to 9 E1, Eef1α2 (mouse) mapping to 2 H4.

**SOURCE**

EF-1 α1/2 (G-8) is a mouse monoclonal antibody raised against amino acids 163-462 mapping at the C-terminus of EF-1 α1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

EF-1 α1/2 (G-8) is available conjugated to agarose (sc-377439 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377439 HRP), 200 µg/ml, for WB, HICP and ELISA; to either phycoerythrin (sc-377439 PE), fluorescein (sc-377439 FITC), Alexa Fluor® 488 (sc-377439 AF488), Alexa Fluor® 546 (sc-377439 AF546), Alexa Fluor® 594 (sc-377439 AF594) or Alexa Fluor® 647 (sc-377439 AF647), 200 µg/ml, for WB (RGB), IF, HICP and FCN; and to either Alexa Fluor® 680 (sc-377439 AF680) or Alexa Fluor® 790 (sc-377439 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCN.

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**APPLICATIONS**

EF-1 α1/2 (G-8) is recommended for detection of EF-1 α1 and EF-1 α2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:1000-1:10000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:500-1:5000), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:500-1:5000), and solid phase ELISA (starting dilution 1:300, dilution range 1:300-1:3000).

EF-1 α1/2 (G-8) is also recommended for detection of EF-1 α1 and EF-1 α2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of EF-1 α1/2: 50 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, A549 cell lysate: sc-2413 or U-87 MG cell lysate: sc-2411.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgGκ BP-HRP or m-IgGκ BP-HRP (Cruz Marker); sc-516102 or sc-516102 with DAB, 50X: sc-24982
2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

![Western blot analysis of EF-1 α1/2 expression in HL-60 (A), U-87 MG (B), MOLT-4 (C), A549 (D) and HeLa (E) whole cell lysates and IAP-32 nuclear extract (F). Detection reagent used: m-IgGκ BP-HRP: sc-516102.](image)

![Immunofluorescence staining of formalin-fixed HeLa cells showing cytoplasmic and nuclear localization.](image)

**SELECT PRODUCT CITATIONS**


**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**PROTOCOLS**

See our website at www.scbt.com for detailed protocols and support products.