

## EB3/MAPRE3 Protein, Human (His)

<b>Cat. No.:</b>	HY-P75275
<b>Synonyms:</b>	Microtubule-associated protein RP/EB family member 3; EBF3; EB3; RP3; MAPRE3
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	Q9UPY8-1 (M1-Y281)
<b>Gene ID:</b>	22924
<b>Molecular Weight:</b>	Approximately 34 kDa

### PROPERTIES

<b>AA Sequence</b>	<pre> MAVNVYSTSV    TSENLSRHDM    LAWVNDLSLHL    NYTKIEQLCS GAAYCQFMDM    LFPGCVHLRK    VKFQAKLEHE    YIHNFKVLQA AFKKMGVDKI    IPVKLVKGGK    FQDNFEFIQW    FKKFFDANYD GKDYNPLLAR    QGQDVAPPPN    PGDQIFNKS    KLIGTAVPQR TSP TGPKNMQ    TSGRLSNVAP    PCILRKNPPS    ARNGGHETDA QILELNQQLV    DLKLTVDGLE    KERDFYFSKL    RDIELICQEH ESENSPVISG    IIGILYATEE    GFAPPEDDEI    EEHQQEDQDE Y           </pre>
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution of PBS, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	EB3, a plus-end tracking protein (+TIP), intricately modulates the dynamics of the microtubule cytoskeleton by binding to the plus-end of microtubules. Functionally, EB3 serves as a promoter of microtubule growth and potentially contributes to spindle function by stabilizing microtubules and anchoring them at centrosomes. Additionally, it acts as a crucial regulator of minus-end microtubule organization, participating in the recruitment of CAMSAP2 to the Golgi apparatus through
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interaction with the complex formed by AKAP9 and PDE4DIP. This interaction is pivotal for tethering non-centrosomal minus-end microtubules to the Golgi, a process essential for polarized cell movement. EB3 forms homodimers and heterodimers with MAPRE1, binding both monomeric and polymerized GTP-bound tubulin. Its intricate network of interactions includes APC2, DCTN1, SRCIN1, CLIP1, SLAIN2, SLAIN1, AKAP9, and PDE4DIP, underscoring its multifaceted role in microtubule dynamics and cellular organization.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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