

HE4 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	HE4;WAP four-disulfide core domain 2;WAP5;1600023A02Rik
Protein Construction:	A DNA sequence encoding the mouse Wfdc2 (NP_080599.1) (Met1-Phe174) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Thr 26
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q4FZJ6
Molecular Weight:	16.4 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:	A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.
Stability & Storage:	It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

WAP four-disulfide core domain protein 2, also known as Epididymal secretory protein E4, Major epididymis-specific protein E4, Putative protease inhibitor WAP5, WFDC2 and HE4, is a secreted protein that contains two WAP domains. WFDC2 / HE4 is a member of a family of stable 4-disulfide core proteins that are secreted at high levels. It is expressed in a number of normal tissues, including male reproductive system, regions of the respiratory tract and nasopharynx. It is highly expressed in a number of tumors cells lines, such ovarian, colon, breast, lung and

renal cells lines. Initially described as being exclusively transcribed in the epididymis. WFDC2 may be a component of the innate immune defences of the lung, nasal and oral cavities and suggest that WFDC2 functions in concert with related WAP domain containing proteins in epithelial host defence. WFDC2 re-expression in lung carcinomas may prove to be associated with tumour type and should be studied in further detail. Mammary gland expression of tammr WFDC2 during the course of lactation showed WFDC2 was elevated during pregnancy, reduced in early lactation and absent in mid-late lactation. WFDC2 / HE4 can undergo a complex series of alternative splicing events that can potentially yield five distinct WAP domain containing protein isoforms.

Reference

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Hellström,I. et al., 2003, Cancer Res. 63 (13):3695-700.
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Galgano,M.T. et al., 2006, Mod Pathol.19 (6):847-53.
Sharp,J.A. et al., 2007, Evol Dev. 9 (4): 378-92.

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