

Product datasheet for **UM500008CF**

ERCC1 Mouse Monoclonal Antibody [Clone ID: 4F9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	4F9
Applications:	10k-ChIP, IF, IHC, WB
Recommended Dilution:	WB 1:2000, IHC 1:50, IF 1:100
Reactivity:	Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Protein expressed in 293T cell transfected with human ERCC1 expression vector
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	32.6 kDa
Gene Name:	ERCC excision repair 1, endonuclease non-catalytic subunit
Database Link:	NP_001974 Entrez Gene 13870 Mouse Entrez Gene 2067 Human P07992



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Background:

The product of this gene functions in the nucleotide excision repair pathway, and is required for the repair of DNA lesions such as those induced by UV light or formed by electrophilic compounds including cisplatin. The encoded protein forms a heterodimer with the XPF endonuclease (also known as ERCC4), and the heterodimeric endonuclease catalyzes the 5' incision in the process of excising the DNA lesion. The heterodimeric endonuclease is also involved in recombinational DNA repair and in the repair of inter-strand crosslinks. Mutations in this gene result in cerebrooculofacioskeletal syndrome, and polymorphisms that alter expression of this gene may play a role in carcinogenesis. Multiple transcript variants encoding different isoforms have been found for this gene. The last exon of this gene overlaps with the CD3e molecule, epsilon associated protein gene on the opposite strand.

Synonyms:

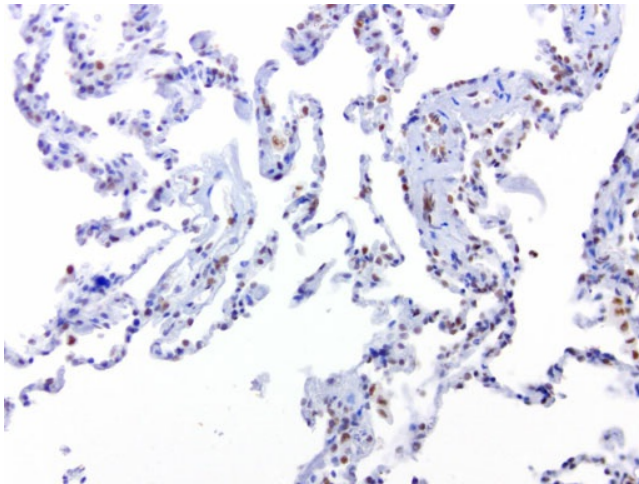
COFS4; RAD10; UV20

Protein Families:

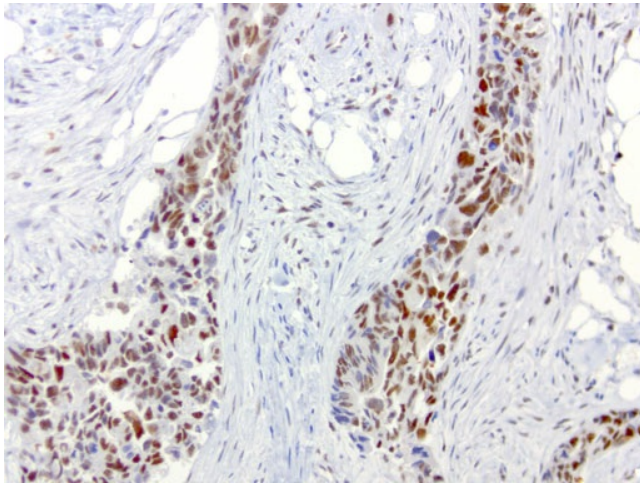
Druggable Genome

Protein Pathways:

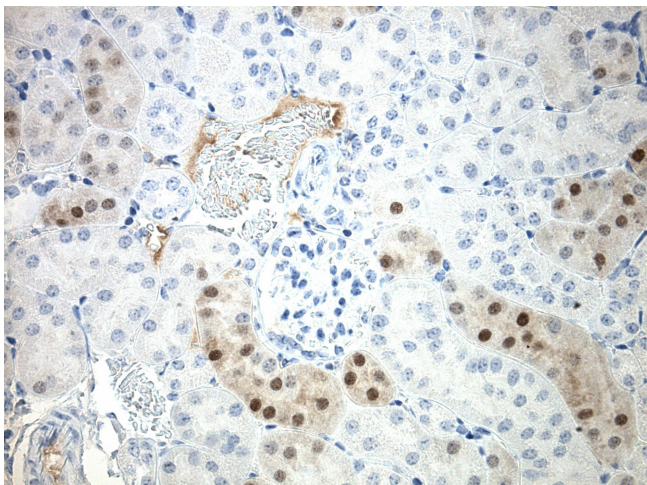
Nucleotide excision repair

Product images:

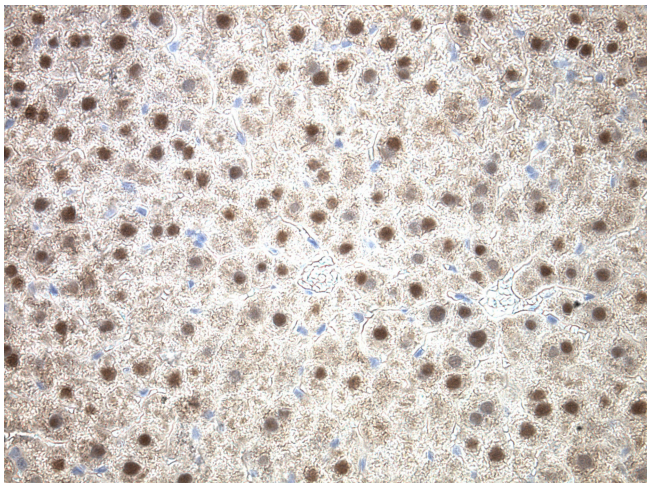
Immunohistochemical staining of FFPE normal adjacent lung from tumor specimen using heat-induced epitope retrieval HIER at 120°C for 3min with Accel buffer pH8.7, mouse monoclonal antibody anti-ERCC1 clone 4F9 was used at 1ug/mL. Strong nuclear stain in lung pneumocytes and macrophages.



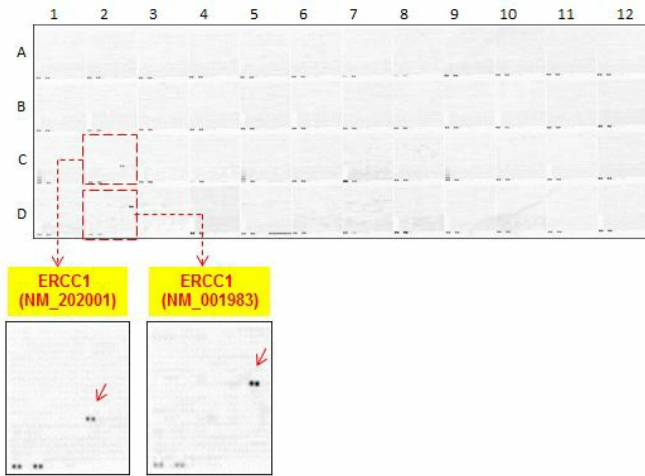
Immunohistochemical staining of FFPE endometrial carcinoma using heat-induced epitope retrieval HIER at 120°C for 3min with Accel buffer pH8.7, mouse monoclonal antibody anti-ERCC1 clone 4F9 was used at 1ug/mL. Strong nuclear stain in tumor cells.



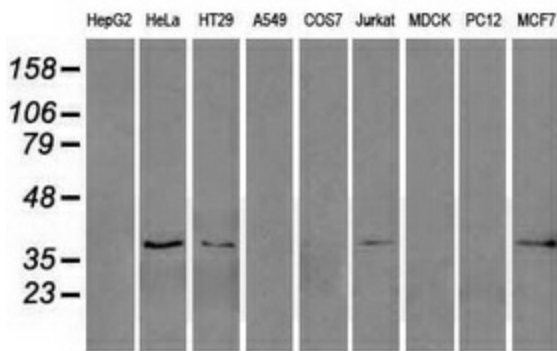
Immunohistochemical staining of paraffin-embedded mouse kidney tissue using anti-ERCC1 clone 4F9 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM500008] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



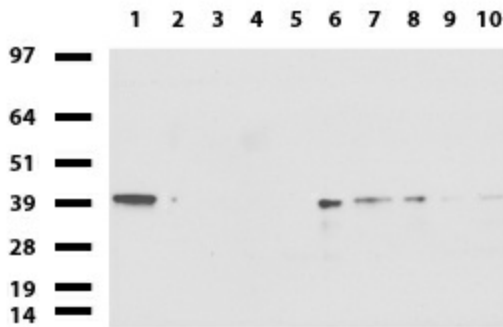
Immunohistochemical staining of paraffin-embedded mouse liver tissue using anti-ERCC1 clone 4F9 mouse monoclonal antibody. HIER ACCEL buffer ([B22C-125]) (pH8.7) at 110C for 10 min, [UM500008] (1:100). Detection was done with Klear Mouse (C/N [D52-18]) DAB Kit.



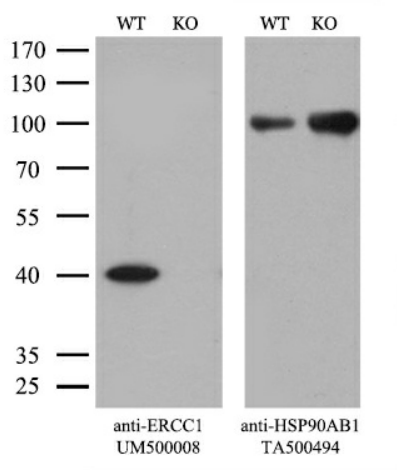
OriGene overexpression protein microarray chip was immunostained with UltraMAB anti-ERCC1 mouse monoclonal antibody (Clone 4F9). The positive reactive proteins are highlighted with red arrows in the enlarged subarray. Other positive controls spotted in this subarray are serial dilutions of mouse IgG as controls.



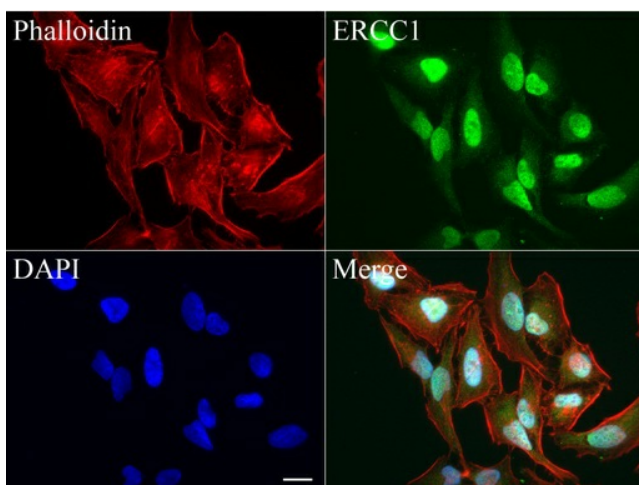
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-ERCC1 monoclonal antibody (Clone 4F9).



Western blot of human tissue lysates (15ug) from 10 different tissues (1: Testis, 2: Omentum, 3: Uterus, 4: Breast, 5: Brain, 6: Liver, 7: Ovary, 8: Thyroid, 9: Colon, 10: Spleen). Dilution: 1:500.



Equivalent amounts of cell lysates (10 ug per lane) of wild-type HeLa cells (WT, Cat# LC810HELA) and ERCC1-Knockout HeLa cells (KO, Cat# [LC810072]) were separated by SDS-PAGE and immunoblotted with anti-ERCC1 monoclonal antibody [UM500008]. Then the blotted membrane was stripped and reprobed with anti-HSP90AB1 antibody ([TA500494]) as a loading control (1:500).



Immunofluorescent staining of HeLa cells using anti-ERCC1 mouse monoclonal antibody ([UM500008], green, 1:100). Actin filaments were labeled with Alexa Fluor® 594 Phalloidin (red), and nuclear with DAPI (blue). Scale bar, 20µm.