

# FOXRED2 Antibody

Catalog # ASC11453

## Product Information

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|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Application           | WB, IF, E                                                                                                                                                          |
| Primary Accession     | <a href="#">Q8IWF2</a>                                                                                                                                             |
| Other Accession       | <a href="#">No. Q8IWF2, 156139139</a>                                                                                                                              |
| Reactivity            | Human                                                                                                                                                              |
| Host                  | Rabbit                                                                                                                                                             |
| Clonality             | Polyclonal                                                                                                                                                         |
| Isotype               | IgG                                                                                                                                                                |
| Calculated MW         | 77791                                                                                                                                                              |
| Concentration (mg/ml) | 1 mg/mL                                                                                                                                                            |
| Conjugate             | Unconjugated                                                                                                                                                       |
| Application Notes     | FOXRED2 antibody can be used for detection of FOXRED2 by Western blot at 1 $\mu$ g/mL. Antibody can also be used for immunofluorescence starting at 20 $\mu$ g/mL. |

## Additional Information

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| Gene ID                  | 80020                                                                                                                                                                                                                                           |
| Other Names              | FAD-dependent oxidoreductase domain-containing protein 2, Endoplasmic reticulum flavoprotein associated with degradation, FOXRED2, ERFAD                                                                                                        |
| Target/Specificity       | FOXRED2;                                                                                                                                                                                                                                        |
| Reconstitution & Storage | FOXRED2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| Precautions              | FOXRED2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                              |

## Protein Information

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| Name              | FOXRED2 ( <a href="#">HGNC:26264</a> )                                                                                                                                                                                                 |
| Function          | Probable flavoprotein which may function in endoplasmic reticulum associated degradation (ERAD). May bind non-native proteins in the endoplasmic reticulum and target them to the ubiquitination machinery for subsequent degradation. |
| Cellular Location | Endoplasmic reticulum lumen {ECO:0000255   PROSITE- ProRule:PRU10138, ECO:0000269   PubMed:19706418}                                                                                                                                   |

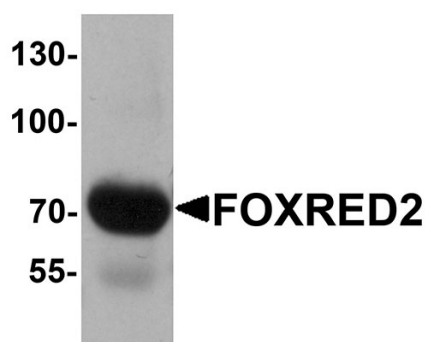
## Background

**FOXRED2 Antibody:** FOXRED2, also known as ERFAD, is an endoplasmic reticulum (ER) luminal flavoprotein which may function in ER associated degradation (ERAD). It has been proposed to bind non-native proteins in the endoplasmic reticulum and target them to the ubiquitination machinery for subsequent degradation. Upon knockdown of FOXRED2, the degradation of the ERAD model substrate ribophorin 332 is delayed, and the overall level of polyubiquitinated cellular proteins is decreased. Defects in the related protein FOXRED1 are a cause of mitochondrial complex I deficiency (MT-C1D), suggesting the FOXRED2 may also play a role in MT-C1D.

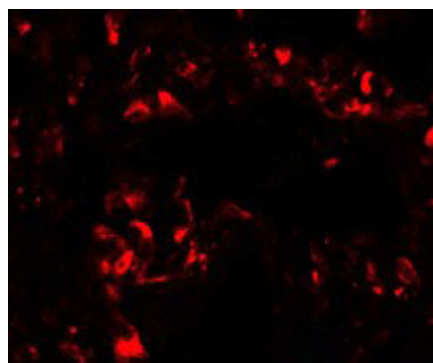
## References

Riemer J, Appenzeller-Herzog C, Johansson L, et al. A luminal flavoprotein in endoplasmic reticulum-associated degradation. *Proc. Natl. Acad. Sci. USA* 2009; 106:14831-6.  
Riemer J, Hansen HG, Appenzeller-Herzog C, et al. Identification of the PDI-family member ERp90 as an interaction partner of ERFAD. *PLoS One* 2011; 6:e17037  
Calvo SE, Tucker EJ, Compton AG, et al. High-throughput, pooled sequencing identifies mutations in NUBPL and FOXRED1 in human complex I deficiency. *Nat. Genet.* 2010; 42:851-8.

## Images



Western blot analysis of FOXRED2 in human lung tissue lysate with FOXRED2 antibody at 1 µg/mL.



Immunofluorescence of FOXRED2 in human lung cells with FOXRED2 antibody at 20 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.