

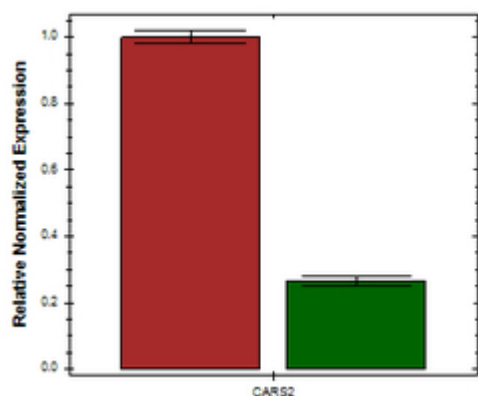
## Product Data Sheet

## Human CARS2 Knockdown HEK293T Cell Lysate

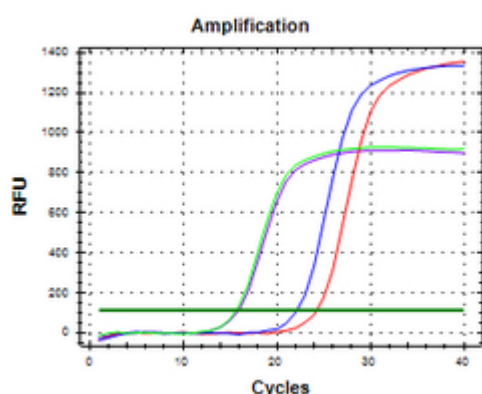
| Catalog #                 | Source                                                                                                                                                                                                                                                                                                                                                                                                                                             | Reactivity | Applications |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|
| CKD2304                   | HEK293T                                                                                                                                                                                                                                                                                                                                                                                                                                            | Human      |              |
| <b>Description</b>        | Human CARS2 knockdown HEK293T cell lysate is engineered by our optimized transduction of the specific shRNA.                                                                                                                                                                                                                                                                                                                                       |            |              |
| <b>Form</b>               | Liquid in 50 mM Tris-HCl, 2% SDS, 10% glycerol, 100 mM DTT, 0.01% Bromophenol blue                                                                                                                                                                                                                                                                                                                                                                 |            |              |
| <b>Gene Symbol</b>        | CARS2                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |              |
| <b>Alternative Names</b>  | Probable cysteine--tRNA ligase, mitochondrial; Cysteinyl-tRNA synthetase; CysRS                                                                                                                                                                                                                                                                                                                                                                    |            |              |
| <b>Entrez Gene</b>        | 79587                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |              |
| <b>SwissProt</b>          | Q9HA77                                                                                                                                                                                                                                                                                                                                                                                                                                             |            |              |
| <b>KO/KD Validation</b>   | RT-qPCR                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |              |
| <b>Cell Line</b>          | HEK293T                                                                                                                                                                                                                                                                                                                                                                                                                                            |            |              |
| <b>Components</b>         | Human CARS2 knockdown HEK293T cell lysate x 1 vial; shControl HEK293T cell lysate x 1 vial                                                                                                                                                                                                                                                                                                                                                         |            |              |
| <b>Directions for Use</b> | Thaw the vial on ice or at room temperature. Mix gently by pipetting or brief vortexing. Briefly centrifuge to collect the sample. Load the desired amount of lysate directly onto an SDS-PAGE gel. Perform SDS-PAGE and Western blot analysis using standard laboratory protocols. Note: This lysate has been pre-denatured in SDS sample buffer containing DTT and does not require additional reducing agent or boiling before electrophoresis. |            |              |
| <b>Storage/Stability</b>  | Shipped at 4°C. Upon delivery aliquot and store at -80°C for one year. Avoid freeze/thaw cycles.                                                                                                                                                                                                                                                                                                                                                   |            |              |

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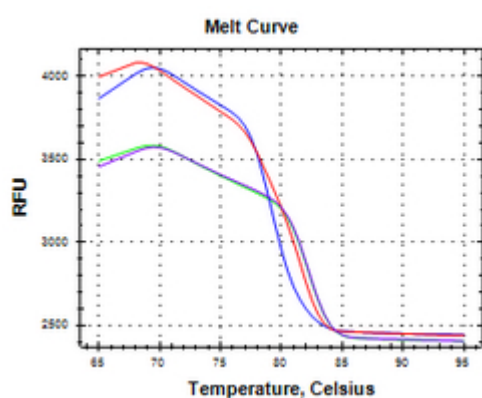
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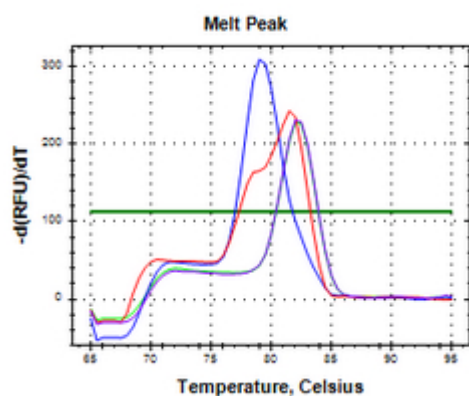
RT-qPCR analysis of CARS2 knockdown efficiency. Compared with the 293T shRNA control (left), CARS2 mRNA expression in the stable shRNA knockdown cell line (right) decreased, and the knockdown efficiency was 74%.



RT-qPCR amplification curves. The Ct values of the knockout sample significantly increased, confirming the effective knockdown of CARS2 mRNA. [Red curve (knockdown sample), Blue curve (shRNA control), Purple and Green curve (reference gene GAPDH)]



RT-qPCR melt curve analysis demonstrated highly specific PCR amplification product without detectable nonspecific amplification or primer-dimer formation. [Red curve (knockdown sample), Blue curve (shRNA control), Purple and Green curve (reference gene GAPDH)]



This picture presents the raw fluorescence data (relative fluorescence units, RFU) used to generate the melt curves. [Red curve (knockdown sample), Blue curve (shRNA control), Purple and Green curve (reference gene GAPDH)]

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