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www.rockland.com
tech@rockland.com
+1 484.791.3823

Datasheet for KBA-319-383

# DYKDDDDK (FLAG®) Immunoprecipitation Kit

## Overview

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|---|---|
| **Description:** | DYKDDDDK (FLAG®) Immunoprecipitation Kit for immunoprecipitation and purification of recombinant proteins containing the FLAG® epitope tag - KBA-319-383 |
| **Item No.:** | KBA-319-383 |
| **Size:** | 1 Kit |
| **Applications:** | IP, SDS-PAGE |

## Product Details

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| **Background:** | Rockland Immunochemicals' Anti-DYKDDDDK (FLAG®) Kit for Immunoprecipitation allows for the purification by immunoprecipitation of recombinant proteins containing the FLAG® epitope tag provided by the user. The kit relies upon the high specificity of monoclonal antibody raised against the FLAG® epitope tag. This method is far easier and less costly than using antibodies produced against the recombinant protein itself therefore saving time and resources. Using the agarose bound antibody in this kit allows for efficient binding of FLAG® tag proteins without the need for preliminary steps or calibration. The immunoprecipitated FLAG® tag protein can be efficiently eluted from the agarose beads using a low pH elution step. The user is able to further characterize the resultant purified protein by size, post-translational modification, western blot and other assays. |
| **Synonyms:** | FLAG® TAG Immunoprecipitation Kit, Immunoprecipitation Kit for FLAG Antibody, DYKDDDDK, Anti-DYKDDDDK IP Kit, IP FLAG Antibody KIT, DDK, FLAG, FLAG antibody, anti-Flag, anti-DDK, DDK antibody |
| **Detection Kit Type:** | Immunoprecipitation Kit |

## Target Details

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| **Purity/Specificity:** | This kit contains: anti-FLAG® coupled to agarose; FLAG® positive control lysate; 2X SDS-PAGE Sample Buffer; Neutralization Buffer; 1X Lysis Buffer; 10X Wash Buffer; Elution Buffer; along with additional instructions and supplies (see protocol). |
| **Relevant Links:** | • KBA-319-383 SDS<br>• Immunoprecipitation Kit Protocol: FLAG Epitope Tag |

## Application Details

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| **Tested Applications:** | IP, SDS-PAGE |
| **Application Note:** | Rockland Immunochemicals' Anti-DYKDDDDK (FLAG®) Kit for Immunoprecipitation is intended to provide a simple, reliable and convenient purification system for recombinant proteins containing the FLAG® epitope tag. Immunoprecipitation is a powerful technique for the isolation of proteins or protein complexes. Immunoprecipitation consists of several steps including cell lysis, binding of specific antigen to an antibody, antibody-antigen complex precipitation, precipitant wash steps and the dissociation of antigen from the complex. The FLAG® epitope tag is a small but highly immunogenic peptide DYKDDDDK (N-Asp-Tyr-Lys-Asp-Asp-Asp-Asp-Lys-C), which allows fusion proteins to retain their original conformation and function. The hydrophilic character of FLAG® increases the likelihood that it will be located on the surface of the fusion protein where it is accessible to antibodies. Rockland Immunochemicals' Anti-DYKDDDDK (FLAG®) Kit for Immunoprecipitation allows a rapid and efficient immunoprecipitation and elution of an active FLAG® -tagged recombinant protein in less than 2 hours. The immunoprecipitation is performed with anti-FLAG® antibody coupled to agarose beads, which are generated by covalently linking agarose to a highly specific mouse monoclonal antibody raised against FLAG®. The provided protocol is a guideline. Any procedure can be altered according to specific experimental requirements. This kit is sufficient to perform 50 X 20 µL reactions and is stable for at least 1 year when stored as indicated. |
| **Assay Dilutions:** | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| **IP:** | User Optimized |

## Formulation

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| **Physical State:** | n/a |
| **Concentration:** | None |
| **Stabilizer:** | None |

## Shipping & Handling

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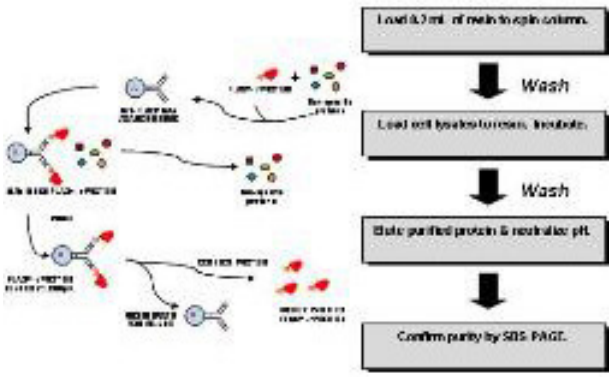
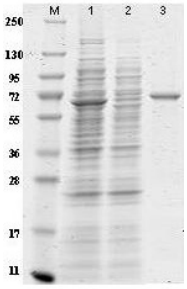
| **Shipping Condition:** | Wet Ice |
| **Storage Condition:** | See kit insert for complete instructions. |
| **Expiration:** | See kit insert for complete instructions. |

## Images




**Western Blot**
Immunoprecipitation and Flow diagram for Anti-DYKDDDDK (FLAG®) Kit#Antibody binding principles are shown for the Anti-DYKDDDDK (FLAG®) Kit to purify FLAG® - tagged recombinant proteins. The anti-FLAG® antibody bound to agarose beads captures the FLAG® - tagged recombinant protein from solution. After copious washing with PBS, the buffer condition is changed allowing the release and collection of the highly purified recombinant protein.

**Kit Box**
This product is assembled as a kit. See attached protocol or CofA for further details.




**Western Blot**
Coomassie stained SDS-PAGE using Anti-DYKDDDDK (FLAG®) Kit for Immunoprecipitation to purify recombinant proteins containing the FLAG® epitope tag from an E.coli cell lysate. Lane 1- cell lysate before immunoprecipitation. Lane 2- cell lysate after immunoprecipitation showing depletion of protein. Lane 3 - purified FLAG® -tagged recombinant protein.

## References

- Kulkarni RA et al. A chemoproteomic portrait of the oncometabolite fumarate. *Nat Chem Biol.* (2019)
- Kulkarni, RA et al. Discovering Targets of Non-enzymatic Acylation by Thioester Reactivity Profiling. *Cell Chemical Biology* (2017)


## Disclaimer

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