BIO BASIC
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Product information

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Yeast Protein Extraction Kit

Catalog #: BSP013
Size: 50 preps
Storage: Mixed components storage*

*: Product will be shipped with ice pack. Check storage conditions. Products have one year expiration from time of purchase.

Product Description:

The kit provides an optimized reagent and buffer system for efficient extraction of biologically active and soluble total protein from yeast cells. The kit contains EDTA, $CaCl_2$, DTT, protease inhibitors, as well as a proprietary reagent to break cell wall. Native and/or recombinant proteins extracted are preserved with biological activity integrities and are suitable for many downstream applications including SDS-PAGE, Western blot, enzyme analysis, 2D gel electrophoresis. The kit is sufficient for 50 x 50 mg wet yeast cells.

Storage and Transportation:

Upon receipt, store Isoosmotic Buffer, Hypoosmotic Buffer at 4°C. Store the Snailase buffer and PMSF Buffer at -20°C.

Composition:

Isoosmotic Buffer	75 ml
Snailase Buffer	250 µl
Hypoosmotic Buffer	25 ml
PMSF Solution	250 µl

Procedures:

1. Cultivate the yeast strain in suitable medium at 28°C to 30°C until OD_{600} of yeast cells density reaches ~1.0 or so.
2. Centrifuge at 8000 rpm for one minute. Discard supernatant and keep yeast paste. Record the weight of wet paste.
3. Add 500 µl Isoosmotic buffer, 5 µl Snailase buffer and 1 µl mercaptoethanol (not provided in the kit) per 50 mg wet yeast paste. Pipette the mixed solution up and down to fully re-suspend yeast cells.
4. Incubate at 30°C for one hour. Occasionally invert the tube several times.
5. Centrifuge at 5000 rpm for one minute, discard supernatant and keep precipitates.
6. Wash the precipitates with 500 µl Isoosmotic buffer. Then centrifuge at 5000 rpm for one minutes. Discard supernatant and keep protoplasmic precipitates.
7. Repeat step 6 once more.
8. Add 500 µl Hypoosmotic buffer and 5 µl PMSF solution. Vortex and keep solution at -20°C for 30 minutes. Then thaw at room temperature. Repeat freeze-thaw operation once more.
9. Centrifuge the above lysed solution at 5000 rpm for 5 minutes. Transfer supernatant for western blot, SDS-PAGE, and/or immunoprecipitation experiments or store at -20°C till further use.

Notes:

1. For 50 mg wet yeast, add 500 µl Isoosmotic buffer, 5 µl Snailase buffer. Too much yeast cells used will lead to incomplete lysis of cell wall.
2. The above lysed solution must be stored cold at 2-8°C for the further experiments.

PRODUCTS ARE INTENDED FOR BASIC SCIENTIFIC RESEARCH ONLY.
NOT INTENDED FOR HUMAN OR ANIMAL USE.

