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Product Datasheet

1 - PEB (4x) - protein extraction buffer
GRP12215

Reactivity	Plant
Storage	Stable at RT for at least 1 month; short-term storage (6 month) at 4°C and long term storage (1 year or more) at -20°C
Note	For research use only.
Application Notes	Additional Information: Buffer components (4x): contains ~ 40% v/v glycerol [HOCH2CH(OH)CH2OH], Tris-HCl [NH2C(CH2OH)3 · HCl] pH 8.5, LDS [CH3(CH2)11OSO3Li], EDTA [(HO2CCH2)2NCH2CH2N(CH2CO2H)2]It is recommended to include a protease inhibitor (not supplied with this buffer) from a freshly made stock while preparing the ready-to-use 1x PSB.PEB has been optimized for quantitative small-scale preparation of whole protein extracts from plant/algal tissue. Extraction using the procedure described below will result in maximum yield of proteins and diminish protein degradation and aggregation.Extracts may be quantified using detergent (LDS) compatible methods and have been shown to give highly reproducible and quantitative results in subsequent SDS PAGE gel electrophoresis, Western Blotting, and immunoprecipitation.PEB has been tested on a wide range of species and tissues from higher plants, mosses, lichens, algae, diatoms, dinoflagellates, and cyanobacteria. Background: PEB is an extraction buffer for disruption and solubilisation of total protein from plant tissue and algal cells. The use of the anionic detergent LDS together with the recommended procedure (combination of sonication and freeze/thaw cycles) has been shown to increase the number of solubilised and non-degraded proteins when compared to other methods of cell disruption (see reference). The estimated hands-on time for the recommended procedure is 20-30 minutes for 1-2 samples. Expected yields will be 1.5-6 µg/µl total protein (recovered from standard procedure) depending on the starting material, e.g. its biological stage, homogenization method used (bead beater vs. sonication).