

WorkBeads™ 40 Ni

High throughput agarose media for capture of His-tagged proteins

- **High dynamic capacity**
- **High purity**
- **Excellent flow properties**

Media description

WorkBeads 40 Ni media are produced from agarose using a cross-linking method that results in a highly porous and physically stable agarose matrix. Agarose based matrices have been successfully used for decades in biotechnology research and in the industrial purification of proteins. Agarose is proven to be exceptionally compatible with natural biomolecules like proteins, DNA, carbohydrates etc. The material shows minimal non specific interaction due to the hydrophilic nature of agarose. Unlike matrices made from synthetic polymers, agarose does not have micro pores that can contribute to local pH variations in the microenvironment in the column which lead to distorted separations.

WorkBeads 40 Ni for immobilized metal affinity chromatography (IMAC) gels are activated and a chelator is coupled according to the Bromohydrin method. Product is based on WorkBeads IDAHigh. This method gives rise to a spacer arm between the agarose backbone and the attached chelator. Ni ions are already preloaded and the product is ready for use once packed into a column. Agarose media are generally easy to pack.

WorkBeads 40 Ni media is supplied in aqueous suspensions containing 20% ethanol as preservative and is immediate ready for chromatographic use after washing.

Applications

WorkBeads 40 Ni is developed for capture of His-tagged proteins. Typical binding and wash buffer is 20 mM sodium phosphate pH 7.4 with 0.5 M NaCl. In order to reduce unspecific binding 20-40 mM imidazole is added to the buffer and the amount is protein dependent and should be tried out. Elution is carried out by further addition of 300-500 mM imidazole and is also protein dependent

Media characteristics

	WorkBeads 40 Ni
Agarose content %	7
Metal Ion capacity; $\mu\text{mol Ni}^{2+}/\text{ml}$	50-60
Average particle Size; μm	45
Protein capacity; mg/ml	>60
Max flow rate at 20 cm Bed Height and 5 Bar; cm/h	600
pH stability	2 – 13

Ordering information

Product name	Pack size	Article number
WorkBeads 40 Ni	Bulk Media – 25 ml	40 650 001
WorkBeads 40 Ni	Bulk Media – 150 ml	40 650 003
WorkBeads 40 Ni	Bulk Media – 1 L	40 650 010

All media are preserved in 20% ethanol.

Order direct on info@bio-works.net or through your local distributor.



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