

Guide to Filters for Protein Reagents

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Our filters are key features that empower scientists to quickly focus their search for protein products from millions of figures in our database to help them design better, more successful experiments.

If there are any types of filters that will help make your search easier and help define your experimental context, please let us know at support@benchsci.com!

How to apply filters

1. Simply type in search criteria into the search bar alongside your target protein/gene to incorporate them into your search (ex. p53, western blot)
 - More information about how to build more complex searches in the search bar can be found [here](#)!
2. Click the filter on the left side to add it to your search criteria (you will see it update in the search bar)
 - Some filters include an option to [Exclude certain selections](#) (ex. if you want to exclude a particular *PTM*)
 - Some filters also include checkboxes to include more than one selection at a time
 - Note: The order in which the filters are presented here may not necessarily reflect how they appear on the platform, as some users may see an alternative recommended filter view

Search logic on the platform

- During your search, you may want to start combining filters of different types (e.g. **Application, Organism Tested...**) or multiple instances of the same filter (e.g. **Application: Western Blot, Immunohistochemistry**)
- The search logic on BenchSci—that is the use of AND, OR between search terms—aims to be intuitive
 - Search logic is described below under each filter type!

Filter type: Application

- This filter allows you to narrow down your results based on what type of experiment the product may be used in
 - Based on vendor recommendations or how it has been used in experimental applications in publications
- Selections include: *western blot, immunofluorescence, immunohistochemistry, flow cytometry, knockdown* etc.
 - You can also search with common abbreviations/aliases like *WB, IF, IHC* or *flow* in the search bar
- Search logic for multiple selections
 - Product results: AND (all products must have been used with that context for all selections)
 - Figure results: OR (all figure results must contain at least one of the selections)

Filter type: Figure Usage Data

- These filters help narrow down your search results based on how the product was used in literature
- Search logic for multiple selections
 - Product results: AND (all products must have been used with that context for all selections)
 - Figure results: OR (all figure results must contain at least one of the selections)

	Description	Example
Organism Tested	Model or organism in which the experiment was conducted or from which cells or tissues were obtained This filter also shows a list of aliases/synonyms (ex. <i>homo sapiens</i> will be grouped under <i>human</i>)	Human Mouse Drosophila
Tissue Used	Type of tissue that experiments using the product were performed in	Liver Lung
Cell Type Used	Cell type that experiments using the product were performed in	Epithelial Neuron
Cell Line Used	Specific names of cell lines that experiments using the product were performed in	HEK293 HeLa cells
Disease	Disease context that experiments using the product were associated with	Breast cancer Chronic kidney disease

Filter type: Supplier

- These filters narrow down the results based on information about the vendors themselves
- Hover over a selection when you open a filter to add *Exclude* to remove vendors from your search
- Search logic for multiple selections (Company): OR (the product or figure results need to match at least one of the companies)

	Description
Availability	This filter will hide discontinued or unavailable products—the default option is that all products will be shown
Company	The vendor that sells the product. You can choose preferred vendors, or exclude vendors you want to avoid

Filter type: Protein Specs

- These filters narrow down the results based on product information that is provided by the vendor
- Hover over a selection when you open the filter to add *Exclude* to remove certain results from your search
- Search logic for multiple selections for both product and figure results
 - AND: PTM, Purity, Formulation
 - OR: Protein Type, Species, Expression System, Grade, Domain, Modification, Purification Method

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	Description	Example
Protein Type	The type of protein — often related to how it's used	Antigen Recombinant Peptide
Species	What species the protein sequence is from.	Human Mouse
Expression System	What system is used to express the protein	E. coli Yeast Mammal
Bioactivity	If you want to only show bioactive protein products	
Grade	Identified protein grades for performing particular experiments	Research grade Research use only (RUO) Mass spectrometry grade
Sequence	If you want to only show products with a known sequence	
Domain	Specified protein domains	Full length Extracellular region
PTM	Any specific post-translational modifications (PTMs) for the protein product	Phospho Acetyl Cleaved
Modification	If the protein is conjugated to any tags, reporter proteins , or any specific mutations	GST tag Unconjugated W777A mutation
Purity	Purity of the protein product	≥ 99% ≥ 90%
Purification Method	How the protein product was purified	Affinity purified Filtered
Formulation	Any properties of the protein product with regards to formulation/storage	Carrier-free Lyophilized Liquid