

# IN Function

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Returns `true` if the first parameter is contained in the array of values in the second parameter.

- The value to match can be a literal or a reference to a column.
- The second parameter must be in array format.

Since the `IN` function returns a Boolean value, it can be used as a function or a conditional.

**Tip:** When you select values in a histogram for a column of String type, the function that identifies the values on which to perform a transform is typically `IN`.

**Tip:** If you need the location of the matched value within the source, use the `FIND` function. See *FIND Function*.

## Basic Usage

```
keep row: IN(brand, ['discount', 'mid', 'high-end'] )
```

**Output:** Keeps all rows in which the value in the `brand` column is either `discount`, `mid`, or `high-end`.

## Syntax and Arguments

```
derive type:single value:IN(column_string, values_array)
```

Argument	Required?	Data Type	Description
<code>column_string</code>	Y	string	Name of column or literal to locate in the column specified in the second parameter
<code>values_array</code>	Y	array literal	Array literal of values to search

For more information on syntax standards, see *Language Documentation Syntax Notes*.

## `column_string`

Name of the column or literal to find in the second parameter.

- Missing values generate missing string results.
  - String constants must be quoted (`'Hello, World'`).
- Multiple columns and wildcards are not supported.

## Usage Notes:

Required?	Data Type	Example Value
Yes	Column reference or any value	myColumn

### values\_array

Array of values to search for the first parameter.

- Column references are not supported.

### Usage Notes:

Required?	Data Type	Example Value
Yes	Array literal	'Steve'

### Examples

**Tip:** For additional examples, see *Common Tasks*.

### Example - Replace T-shirt color

#### Source:

You have the following source data on your products:

ProdId	ProductName	Color	Brand
P001	T-shirt	white	discount
P002	pants	beige	discount
P003	hat	black	discount
P004	T-shirt	white	mid
P005	pants	black	mid
P006	hat	red	mid
P007	T-shirt	white	high-end
P008	pants	white	high-end
P009	hat	blue	high-end

In the data, you notice an error. For the discount and mid brands, T-shirt color should be `orange`. You need to fix it.

#### Transform:

In the Transformer page, you select the `white` value from the histogram at the top of the `Color` column. Among the suggestion cards, select the Set transform. For the first variant, all values are missing. Click **Modify**. The current transform is the following:

```
set col: Color value: NULL() row: Color == 'white'
```

In the Preview, you can see that this transform matches all `white` values in the column and replaces them with a null value. Since the replacement value is `orange`, you can edit the transform so it looks like the following:

```
set col: Color value: 'orange' row: Color == 'white'
```

This step looks better. However, it is replacing all instances of `white`, including those for white pants (P008) and high-end T-shirts (p007), which should not be replaced. To fix, you must add conditions to the `row` expression. First, add the following, which ensures that the transform only replaces for T-shirts:

```
set col: Color value: 'orange' row: (Color == 'white' && ProductName == 'T-shirt')
```

Now, the Preview shows that only T-shirt values are being changed. The transform needs to be further modified to restrict only to the appropriate brands (`discount` and `mid`):

```
set col: Color value: 'orange' row: (Color == 'white' && ProductName == 'T-shirt' && IN  
(Brand, ["discount", "mid"]))
```

**NOTE:** It's possible to specify the brand restriction as `(Brand <> 'high-end')`. However, if there are other brand values in the full dataset, this restriction fails.

### Results:

ProdId	ProductName	Color	Brand
P001	T-shirt	orange	discount
P002	pants	beige	discount
P003	hat	black	discount
P004	T-shirt	orange	mid
P005	pants	black	mid
P006	hat	red	mid
P007	T-shirt	white	high-end
P008	pants	white	high-end
P009	hat	blue	high-end