

# Smith-Waterman Algorithm Element

The *element* uses the Smith-Waterman algorithm to search in the input sequence for regions similar to the specified pattern.

## Parameters in GUI

Parameter	Description	Default value
<b>Annotate As</b>	Name of the result annotations.	misc_feature
<b>Direction</b>	See the description <a href="#">here</a> .	Any
<b>Algorithm</b>	Algorithm version. Depending on the computer configuration the following values may be available: <ul style="list-style-type: none"><li>• Classic 2</li><li>• SSE2</li><li>• CUDA</li></ul>	Classic 2
<b>Filter results</b>	Results filtering strategy. The values available are: <ul style="list-style-type: none"><li>• filter-intersections</li><li>• none</li></ul>	filter-intersections
<b>Gap ext score</b>	Gap extension score.	-1.00
<b>Gap open score</b>	Gap open score.	-10.00
<b>Scoring matrix</b>	Specifies the scoring matrix to use.	Auto
<b>Min score</b>	Percentage of matching between the pattern and the searched sequence region.	90%
<b>Pattern</b>	The pattern to search for.	You must specify a value!
<b>Search in translation</b>	Translates the nucleotide sequence supplied to a protein sequence and searches in the translated sequence.	False

## Parameters in Schema File

**Type:** ssearch

Parameter	Parameter in the GUI	Type
<b>key</b>	<b>Annotate As</b>	<i>string</i>
<b>algorithm</b>	<b>Algorithm</b>	<i>string</i> Depending on the computer configuration the values available are: <ul style="list-style-type: none"><li>• "Classic 2"</li><li>• SSE2</li><li>• CUDA</li></ul>
<b>filter</b>	<b>Filter results</b>	<i>string</i> The values available are: <ul style="list-style-type: none"><li>• filter-intersections</li><li>• none</li></ul>
<b>gap-ext-score</b>	<b>Gap ext score</b>	<i>numeric</i>
<b>gap-open-score</b>	<b>Gap open score</b>	<i>numeric</i>
<b>matrix</b>	<b>Scoring matrix</b>	<i>string</i>
<b>min-score</b>	<b>Min score</b>	<i>numeric</i>
<b>pattern</b>	<b>Pattern</b>	<i>string</i>

<b>strand</b>	<b>Direction</b>	<i>string</i> Available values are: <ul style="list-style-type: none"><li>• complement</li><li>• direct</li><li>• both</li></ul>
<b>translate</b>	<b>Search in translation</b>	<i>boolean</i>