

Documentation for Rest-API HELMNotationToolkit

Available Services:

Validation of HELM String	/WebService/service/Validation/{HELMNotation}	G E T
<i>Description</i>	Check for conformance to the specification & availability of monomers in the current monomer database. Be careful with special cases in the url.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM String	
Validation of HELM String	/WebService/service/Validation/	P O S T
<i>Description</i>	Check for conformance to the specification & availability of monomers in the current monomer database.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{"HELMNotation": "PEPTIDE1{A.G}\$\$\$\$V2.0"}"	
Generate Image for Monomer	/WebService/service/Image/Monomer/?monomerId={monomerId}&polymerType={polymerType}&showRgroups={showRgroups}	G E T
<i>Description</i>	Image generation of the atom/bond representation of monomer.	
Parameter	Description	
Content-Type	Image/png	
Accept	Application/json	
monomerId	MonomerAlternatId of the monomer	
polymerType	PolymerType of the monomer	
showRgroups	Boolean value to show rgroups	
Generate Image for Monomer	/WebService/service/Image/Monomer/	P O S T

<i>Description</i>	Image generation of the atom/bond representation of monomer.	
Parameter	Description	
Content-Type	Image/Base64	
Accept	Application/json	
InputJSON	"{\"monomerId\": \"A\", \"polymerType\": \"PEPTIDE\", \"showRgroups\": \"true\"}"	
Generate Image for HELM	/WebService/service/Image/HELM/{HELMNotation}	G E T
<i>Description</i>	Image generation of the atom/bond representation of the HELM molecule.	
Parameter	Description	
Content-Type	Image/png	
Accept	Application/json	
HELMNotation	Input HELM String	
Generate Image for HELM	/WebService/service/Image/HELM/	P O S T
<i>Description</i>	Image generation of the atom/bond representation of the HELM molecule.	
Parameter	Description	
Content-Type	Image/base64	
Accept	Application/json	
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	
Molecular Weight Calculation	/WebService/service/Calculation/MolecularWeight/{HELMNotation}	G E T
<i>Description</i>	Calculates the molecular weight of a non-ambiguous HELM string.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM String	
Molecular Weight Calculation	/WebService/service/Calculation/MolecularWeight/	P O S T
<i>Description</i>	Calculates the molecular weight of a non-ambiguous HELM string.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	

Molecular Formula Calculation	/WebService/service/Calculation/MolecularFormula/{HELMNotation}	GET
<i>Description</i>	Calculates the molecular formula of a non-ambiguous HELM string.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM String	
Molecular Formula Calculation	/WebService/service/Calculation/MolecularFormula	POST
<i>Description</i>	Calculates the molecular formula of a non-ambiguous HELM string.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	
Extinction coefficient Calculation	/WebService/service/Calculation/ExtinctionCoefficient/{HELMNotation}	GET
<i>Description</i>	Calculates the extinction coefficient of a non-ambiguous HELM string.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM String	
Extinction Coefficient Calculation	/WebService/service/Calculation/ExtinctionCoefficient/	POST
<i>Description</i>	Calculates the extinction coefficient of a non-ambiguous HELM string.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	
Molecule Properties Calculation	/WebService/service/Calculation/MoleculeProperties/{HELMNotation}	GET
<i>Description</i>	Calculates molecule properties of a non-ambiguous HELM string.	
Parameter	Description	

Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM String	
Molecule Properties Calculation	/WebService/service/Calculation/MoleculeProperties	P O S T
<i>Description</i>	Calculates molecule properties of a non-ambiguous HELM string.	
Parameter	Description	
Content-Type	Application/json	
Accept	Applicatoin/json	
InputJSON	"{"HELMNotation\":\"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	
Conversion in Canonical HELM	/WebService/service/Conversion/Canonical/{HELMNotation}	G E T
<i>Description</i>	Converts HELM into canonical HELM.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM String	
Conversion in Canonical HELM	/WebService/service/Conversion/Canonical/	P O S T
<i>Description</i>	Converts HELM into canonical HELM	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{"HELMNotation\":\"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	
Conversion in Standard HELM	/WebService/service/Conversion/Standard/{HELMNotation}	G E T
<i>Description</i>	Converts HELM String into Standard HELM Notation. Note that HELM2 will be downcasted to HELM1, if it is possible.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM String	
Conversion in Standard HELM	/WebService/service/Conversion/Standard/	P O S T

<i>Description</i>	Converts HELM String into Standard HELM Notation. Note that HELM2 will be downcasted to HELM1, if it is possible.		
Parameter	Description		
Content-Type	Application/json		
Accept	Application/json		
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"		
Converts HELM into JSON	/WebService/service/JSON		P O S T
<i>Description</i>	Converts HELM Input into JSON-Output.		
Parameter	Description		
Content-Type	Application/json		
Accept	Application/json		
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"		
Converts HELM String to FASTA	/WebService/service/Fasta/Produce/{HELMNotation}		G E T
<i>Description</i>	Converts HELM String to FASTA-File Format.		
Parameter	Description		
Content-Type	Application/json		
Accept	Application/json		
HELMNotation	Input HELM String		
Converts HELM String to FASTA	/WebService/service/Fasta/Produce/		P O S T
<i>Description</i>	Converts HELM String to FASTA-File Format.		
Parameter	Description		
Content-Type	Application/json		
Accept	Application/json		
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"		
Converts Fasta to HELM	/WebService/service/FASTA/Read/?RNA={RNA}&?PEPTIDE={PEPTIDE}		G E T
<i>Description</i>	Converts Fasta to HELM and generates HELM String.		
Parameter	Description		
Content-Type	Application/json		
Accept	Application/json		
RNA	FASTA-File containing nucleotides		
PEPTIDE	FASTA-File containing peptides		

Converts Peptide Fasta to HELM	/WebService/service/FASTA/Read/PEPTIDE/	P O S T
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<i>Description</i>	Converts peptide Fasta to HELM and generates HELM String.
Parameter	Description
Content-Type	Application/json
Accept	Application/json
InputJSON	"{"PEPTIDE\":">A\n AAA"}"

Converts RNA Fasta to HELM	/WebService/service/FASTA/Read/RNA/	P O S T
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<i>Description</i>	Converts rna Fasta to HELM and generates HELM String.
Parameter	Description
Content-Type	Application/json
Accept	Application/json
InputJSON	"{"RNA\":">A\nGGG"}"

Converts HELM to peptide natural analogue sequence	/WebService/service/FASTA/Convert/PEPTIDE/{HELMNotation}	G E T
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<i>Description</i>	Converts HELM string into peptide natural analogue sequence.
Parameter	Description
Content-Type	Application/json
Accept	Application/json
HELMNotation	Input HELM String

Converts HELM to peptide analogue sequence	/WebService/service/FASTA/Convert/PEPTIDE/	P O S T
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<i>Description</i>	Converts HELM string into peptide natural analogue sequence.
Parameter	Description
Content-Type	Application/json

Accept	Application/json
InputJSON	"{"HELMNotation\":"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"

Converts HELM to RNA analogue sequence	/WebService/service/FASTA/Convert/RNA/{HELMNotation}	G E T
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Description	Converts HELM string into RNA natural analogue sequence.
Parameter	Description
Content-Type	Application/json
Accept	Application/json
HELMNotation	Input HELM string

Converts HELM to RNA natural analogous sequence	/WebService/service/FASTA/Convert/RNA/	P O S T
<i>Description</i>	Converts HELM string into rna natural analogue sequence.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	
Read RNA Sequence	/WebService/service/Sequence/RNA/{sequence}	G E T
<i>Description</i>	Reads rna sequence and generates HELM.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
sequence	Input rna sequence	
Read Peptide Sequence	/WebService/service/Sequence/PEPTIDE/{sequence}	G E T
<i>Description</i>	Reads peptide sequence and generates HELM.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
sequence	Input peptide sequence	
Generates smiles for HELM molecule	/WebService/service/SMILES/{HELMNotation}	G E T
<i>Description</i>	Generates smiles for the whole HELM molecule.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM string	
Generates smiles for HELM molecule	/WebService/service/SMILES/	P O S T
<i>Description</i>	Generates smiles for the whole HELM molecule.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	
Generates canonical smiles for HELM molecule	/WebService/service/SMILES/Canonical/{HELMNotation}	G E T
<i>Description</i>	Generates canonical smiles for the whole HELM molecule.	
Parameter	Description	

Content-Type	Application/json	
Accept	Application/json	
HELMNotation	Input HELM string	
Generates canonical smiles for HELM molecule	/WebService/service/SMILES/Canonical/	P O S T
<i>Description</i>	Generates canonical smiles for the whole HELM molecule.	
Parameter	Description	
Content-Type	Application/json	
Accept	Application/json	
InputJSON	"{\"HELMNotation\": \"PEPTIDE1{A.G}\$\$\$\$V2.0\"}"	