

Peptide_tools 接口文档

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一、参数格式说明

所有 API 接口均为 POST 请求，请求参数以 json 格式传递

二、接口

Overlapping Peptide Library

请求 URL:

<http://127.0.0.1:8080/peptide-tools/peptide/overlapping>

请求参数说明:

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列, 蛋白序列由 20 种氨基酸任意随机组合组成, 20 种氨基(单字母)分别表示为: A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是
length	int	长度, 1-25 中间任一数值	是
offset	int	增长长度数值, 1-25 中间任一数值	是

请求实例:

```
{
  "proteinSequence": "ASDFGHKLMNIYTREWQASDFTYI",
  "length": 10,
  "offset": 3
}
```

```
}
```

返回参数说明：

字段名称	数据类型	描述	是否必选
code	string	返回编码：200-成功，400-参数校验不通过，500-接口异常	是
desc	string	返回消息	是
result	object	返回结果，多个字符串结果用\n 分割	否

返回实例：

成功返回：

```
{
  "code": 200,
  "desc": "Success",
  "result":
    "ASDFGHKLMN\nFGHKLMNIYT\nKLMNIYTREW\nNIYTREWQAS\nTREWQASDFT\nWQASDFTYI\nE
    WQASDFTYI\n"
}
```

或其他返回：

```
{
  "code": 400,
  "desc": "length,offset 数值不正确",
  "result": null
}.....
```

Truncation Peptide Library

请求 URL：

<http://127.0.0.1:8080/peptide-tools/peptide/truncation>

请求参数说明：

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列, 蛋白序列由 20 种氨基酸任意随机组合组成, 20 种氨基（单字母）分别表示为：A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是
nTerminus	int	N-Term,1-蛋白序列长度 中任意自然数	是
cTerminus	int	C-Term,1-蛋白序列长度 中任意自然数	是

请求实例：

```
{
  "proteinSequence": "ASDFGHKLMNIYTR",
  "nTerminus": 2,
  "cTerminus": 2
}
```

返回参数说明：

字段名称	数据类型	描述	是否必选
code	string	返回编码：200-成功，400-参数校验不通过，500-接口异常	是
desc	string	返回消息	是
result	object	返回结果	否

返回实例：

```
{
  "code": 200,
  "desc": "Success",
  "result": [
    "ASDFGHKLMNIY",
    "ASDFGHKLMN",
    "ASDFGHKL",
    "ASDFGH",
    "ASDF",
    "AS",
    "DFGHKLMNIYTR",
    "GHKLMNIYTR",
    "KLMNIYTR",
    "MNIYTR",
    "IYTR",
    "TR",
    "DFGHKLMNIY",
    "GHKLMN",
    "KL"
  ]
}
```

T-cell Truncated Library

请求 URL:

<http://127.0.0.1:8080/peptide-tools/peptide/tcellPeptides>

请求参数说明:

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列, 蛋白序列由 20 种氨基酸任意随机组合组成, 20 种氨基(单字母)分别表示为: A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是
length	int	长度, 1-25 中间任一数值	是

请求实例:

```
{
  "proteinSequence": "ASDFGHKLMNIYTR",
  "length": 10
}
```

返回参数说明:

字段名称	数据类型	描述	是否必选
code	string	返回编码: 200-成功, 400-参数校验不通过, 500-接口异常	是
desc	string	返回消息	是
result	object	返回结果, 多个字符串结果用\n 分割	否

返回实例:

```
{
  "code": 200,
  "desc": "Success",
  "result": {
    "Tub5": "GHKLMNIYTR\nHKLMNIYTR\nKLMNIYTR\nLMNIYTR",
    "Tub4": "FGHKLMNIYT\nGHKLMNIYT\nHKLMNIYT\nKLMNIYT",
    "Tub3": "DFGHKLMNIY\nFGHKLMNIY\nGHKLMNIY\nHKLMNIY",
    "Tub2": "SDFGHKLMNI\nDFGHKLMNI\nFGHKLMNI\nGHKLMNI",
    "Tub1": "ASDFGHKLMN\nSDFGHKLMN\nDFGHKLMN\nFGHKLMN"
  }
}
```

```
}  
}
```

Scrambled Peptide Library

请求 URL:

<http://127.0.0.1:8080/peptide-tools/peptide/scramblePeptide>

请求参数说明:

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列, 蛋白序列由 20 种氨基酸任意随机组合组成, 20 种氨基(单字母)分别表示为: A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是
numberOfScrambles	int	Number of Scrambles: 1-蛋白序列长度中任意自然数	是

请求实例:

```
{  
  "proteinSequence": "ASDFGHKLMNIYTR",  
  "numberOfScrambles": 4  
}
```

返回参数说明:

字段名称	数据类型	描述	是否必选
code	string	返回编码: 200-成功, 400-参数校验不通过, 500-接口异常	是
desc	string	返回消息	是
result	object	返回结果	否

返回实例:

```
{  
  "code": 200,  
  "desc": "Success",  
  "result": [
```

```

        "ASDFGHKLMNIYTR",
        "RGDFKAMTHNYILS",
        "NFMHSGDRTALKIY",
        "LIMTNAYFSGRHKD",
        "YGRANTDLKMSHFI"
    ]
}

```

Alanine Scanning Peptide Library

请求 URL:

<http://127.0.0.1:8080/peptide-tools/peptide/performAlanineScan>

请求参数说明:

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列, 蛋白序列由 20 种氨基酸任意随机组合组成, 20 种氨基(单字母)分别表示为: A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是

请求实例:

```

{
    "proteinSequence": "ASDFGHKLMNIYTR"
}

```

返回参数说明:

字段名称	数据类型	描述	是否必选
code	string	返回编码: 200-成功, 400-参数校验不通过, 500-接口异常	是
desc	string	返回消息	是
result	object	返回结果	否

返回实例:

```

{
    "code": 200,

```

```

    "desc": "Success",
    "result": [
        "ASDFGHKLMNIYTR",
        "ASDFGHKLMNIYTR",
        "AADFGHKLMNIYTR",
        "ASAFGHKLMNIYTR",
        "ASDAGHKLMNIYTR",
        "ASDFAHKLMNIYTR",
        "ASDFGAKLMNIYTR",
        "ASDFGHALMNIYTR",
        "ASDFGHKAMNIYTR",
        "ASDFGHKLANIYTR",
        "ASDFGHKLMAIYTR",
        "ASDFGHKLMNAYTR",
        "ASDFGHKLMNIATR",
        "ASDFGHKLMNIYAR",
        "ASDFGHKLMNIYTA"
    ]
}

```

1-Positional Scanning Library

请求 URL:

<http://127.0.0.1:8080/peptide-tools/peptide/performPositionalScanning>

请求参数说明:

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列，蛋白序列由 20 种氨基酸任意随机组合组成，20 种氨基（单字母）分别表示为：A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是
positionToReplace	int	Position of residue to be replaced (from N-terminus)（从左往右）：1-n 中任意自然数，设为 a, $a \leq N$	是

请求实例:

```

{
  "proteinSequence": "ASDFGHKLMNIYTR",
  "positionToReplace": 2
}

```

返回参数说明：

字段名称	数据类型	描述	是否 必选
code	string	返回编码：200-成功，400-参数校验不通过，500-接口异常	是
desc	string	返回消息	是
result	object	返回结果	否

返回实例：

```
{
  "code": 200,
  "desc": "Success",
  "result": [
    "ASDFGHKLMNIYTR",
    "AADFGHKLMNIYTR",
    "ACDFGHKLMNIYTR",
    "ADDFGHKLMNIYTR",
    "AEDFGHKLMNIYTR",
    "AFDFGHKLMNIYTR",
    "AGDFGHKLMNIYTR",
    "AHDFGHKLMNIYTR",
    "AIDFGHKLMNIYTR",
    "AKDFGHKLMNIYTR",
    "ALDFGHKLMNIYTR",
    "AMDFGHKLMNIYTR",
    "ANDFGHKLMNIYTR",
    "APDFGHKLMNIYTR",
    "AQDFGHKLMNIYTR",
    "ARDFGHKLMNIYTR",
    "ASDFGHKLMNIYTR",
    "ATDFGHKLMNIYTR",
    "AVDFGHKLMNIYTR",
    "AWDFGHKLMNIYTR",
    "AYDFGHKLMNIYTR"
  ]
}
```

2-Positional Scanning Library

请求 URL：

<http://127.0.0.1:8080/peptide-tools/peptide/performPositional2Scanning>

请求参数说明：

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列，蛋白序列由 20 种氨基酸任意随机组合组成，20 种氨基（单字母）分别表示为：A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是
positionA	int	替换位置 A，Position of residue to be replaced (from N-terminus)（从左往右），1-序列长度中任意自然数	是
positionB	int	替换位置 B，Position of residue to be replaced (from N-terminus)（从左往右），1-序列长度中任意自然数	是

请求实例：

```
{
  "proteinSequence": "ASDFGHKLMNIYTR",
  "positionA": 2,
  "positionB": 3
}
```

返回参数说明：

字段名称	数据类型	描述	是否必选
code	string	返回编码：200-成功，400-参数校验不通过，500-接口异常	是
desc	string	返回消息	是
result	object	返回结果	否

返回实例：

```
{
  "code": 200,
  "desc": "Success",
  "result": [
    "AAAFGHKLMNIYTR",
    "AACFGHKLMNIYTR",
    "AADFGHKLMNIYTR",
    "AAEFGHKLMNIYTR",
    "AAFFGHKLMNIYTR",
    "AAGFGHKLMNIYTR",
    "AAHFGHKLMNIYTR",
    "AAIFGHKLMNIYTR",
  ]
}
```

"AAKFGHKLMNIYTR",
"AALFGHKLMNIYTR",
"AAMFGHKLMNIYTR",
"AANFGHKLMNIYTR",
"AAPFGHKLMNIYTR",
"AAQFGHKLMNIYTR",
"AARFGHKLMNIYTR",
"AASFGHKLMNIYTR",
"AATFGHKLMNIYTR",
"AAVFGHKLMNIYTR",
"AAWFGHKLMNIYTR",
"AAYFGHKLMNIYTR",
"ACAFGHKLMNIYTR",
"ACCFGHKLMNIYTR",
"ACDFGHKLMNIYTR",
"ACEFGHKLMNIYTR",
"ACFFGHKLMNIYTR",
"ACGFGHKLMNIYTR",
"ACHFGHKLMNIYTR",
"ACIFGHKLMNIYTR",
"ACKFGHKLMNIYTR",
"ACLFGHKLMNIYTR",
"ACMFGHKLMNIYTR",
"ACNFGHKLMNIYTR",
"ACPFGHKLMNIYTR",
"ACQFGHKLMNIYTR",
"ACRFGHKLMNIYTR",
"ACSGHKLMNIYTR",
"ACTFGHKLMNIYTR",
"ACVFGHKLMNIYTR",
"ACWFGHKLMNIYTR",
"ACYFGHKLMNIYTR",
"ADAFGHKLMNIYTR",
"ADCFGHKLMNIYTR",
"ADDFGHKLMNIYTR",
"ADEFGHKLMNIYTR",
"ADFFGHKLMNIYTR",
"ADGFGHKLMNIYTR",
"ADHFGHKLMNIYTR",
"ADIFGHKLMNIYTR",
"ADKFGHKLMNIYTR",
"ADLFGHKLMNIYTR",
"ADMFGHKLMNIYTR",
"ADNFGHKLMNIYTR",

"ADPFGHKLMNIYTR",
"ADQFGHKLMNIYTR",
"ADRFGHKLMNIYTR",
"ADSFGHKLMNIYTR",
"ADTFGHKLMNIYTR",
"ADVFGHKLMNIYTR",
"ADWFGHKLMNIYTR",
"ADYFGHKLMNIYTR",
"AEAFGHKLMNIYTR",
"AECFGHKLMNIYTR",
"AEDFGHKLMNIYTR",
"AEEFGHKLMNIYTR",
"AEFFGHKLMNIYTR",
"AEGFGHKLMNIYTR",
"AEHFGHKLMNIYTR",
"AEIFGHKLMNIYTR",
"AEKFGHKLMNIYTR",
"AELFGHKLMNIYTR",
"AEMFGHKLMNIYTR",
"AENFGHKLMNIYTR",
"AEPFGHKLMNIYTR",
"AEQFGHKLMNIYTR",
"AERFGHKLMNIYTR",
"AESFGHKLMNIYTR",
"AETFGHKLMNIYTR",
"AEVFGHKLMNIYTR",
"AEWFGHKLMNIYTR",
"AEYFGHKLMNIYTR",
"AFAFGHKLMNIYTR",
"AFCFGHKLMNIYTR",
"AFDFGHKLMNIYTR",
"AFefGHKLMNIYTR",
"AFFFGHKLMNIYTR",
"AFGFGHKLMNIYTR",
"AFHFGHKLMNIYTR",
"AFIFGHKLMNIYTR",
"AFKFGHKLMNIYTR",
"AFLFGHKLMNIYTR",
"AFMFGHKLMNIYTR",
"AFNFGHKLMNIYTR",
"AFPFGHKLMNIYTR",
"AFQFGHKLMNIYTR",
"AFRFGHKLMNIYTR",
"AFSFGHKLMNIYTR",

"AFTFGHKLMNIYTR",
"AFVFGHKLMNIYTR",
"AFWFGHKLMNIYTR",
"AFYFGHKLMNIYTR",
"AGAFGHKLMNIYTR",
"AGCFGHKLMNIYTR",
"AGDFGHKLMNIYTR",
"AGEFGHKLMNIYTR",
"AGFFGHKLMNIYTR",
"AGGFGHKLMNIYTR",
"AGHFGHKLMNIYTR",
"AGIFGHKLMNIYTR",
"AGKFGHKLMNIYTR",
"AGLFGHKLMNIYTR",
"AGMFGHKLMNIYTR",
"AGNFGHKLMNIYTR",
"AGPFGHKLMNIYTR",
"AGQFGHKLMNIYTR",
"AGRFGHKLMNIYTR",
"AGSFGHKLMNIYTR",
"AGTFGHKLMNIYTR",
"AGVFGHKLMNIYTR",
"AGWFGHKLMNIYTR",
"AGYFGHKLMNIYTR",
"AHAFGHKLMNIYTR",
"AHCFGHKLMNIYTR",
"AHDFGHKLMNIYTR",
"AHEFGHKLMNIYTR",
"AHFFGHKLMNIYTR",
"AHGFGHKLMNIYTR",
"AHHFGHKLMNIYTR",
"AHIFGHKLMNIYTR",
"AHKFGHKLMNIYTR",
"AHLFGHKLMNIYTR",
"AHMFGHKLMNIYTR",
"AHNFGHKLMNIYTR",
"AHPFGHKLMNIYTR",
"AHQFGHKLMNIYTR",
"AHRFGHKLMNIYTR",
"AHSFGHKLMNIYTR",
"AHTFGHKLMNIYTR",
"AHVFGHKLMNIYTR",
"AHWFGHKLMNIYTR",
"AHYFGHKLMNIYTR",

"AIAFGHKLMNIYTR",
"AICFGHKLMNIYTR",
"AIDFGHKLMNIYTR",
"AIEFGHKLMNIYTR",
"AIFFGHKLMNIYTR",
"AIGFGHKLMNIYTR",
"AIHFGHKLMNIYTR",
"AIIFGHKLMNIYTR",
"AIKFGHKLMNIYTR",
"AILFGHKLMNIYTR",
"AIMFGHKLMNIYTR",
"AINFGHKLMNIYTR",
"AIPFGHKLMNIYTR",
"AIQFGHKLMNIYTR",
"AIRFGHKLMNIYTR",
"AISFGHKLMNIYTR",
"AITFGHKLMNIYTR",
"AIVFGHKLMNIYTR",
"AIWFGHKLMNIYTR",
"AIYFGHKLMNIYTR",
"AKAFGHKLMNIYTR",
"AKCFGHKLMNIYTR",
"AKDFGHKLMNIYTR",
"AKEFGHKLMNIYTR",
"AKFFGHKLMNIYTR",
"AKGFGHKLMNIYTR",
"AKHFGHKLMNIYTR",
"AKIFGHKLMNIYTR",
"AKKFGHKLMNIYTR",
"AKLFGHKLMNIYTR",
"AKMFGHKLMNIYTR",
"AKNFGHKLMNIYTR",
"AKPFGHKLMNIYTR",
"AKQFGHKLMNIYTR",
"AKRFGHKLMNIYTR",
"AKSFGHKLMNIYTR",
"AKTFGHKLMNIYTR",
"AKVFGHKLMNIYTR",
"AKWFGHKLMNIYTR",
"AKYFGHKLMNIYTR",
"ALAFGHKLMNIYTR",
"ALCFGHKLMNIYTR",
"ALDFGHKLMNIYTR",
"ALEFGHKLMNIYTR",

"ALFFGHKLMNIYTR",
"ALGFGHKLMNIYTR",
"ALHFGHKLMNIYTR",
"ALIFGHKLMNIYTR",
"ALKFGHKLMNIYTR",
"ALLFGHKLMNIYTR",
"ALMFGHKLMNIYTR",
"ALNFGHKLMNIYTR",
"ALPFGHKLMNIYTR",
"ALQFGHKLMNIYTR",
"ALRFGHKLMNIYTR",
"ALSFGHKLMNIYTR",
"ALTFGHKLMNIYTR",
"ALVFGHKLMNIYTR",
"ALWFGHKLMNIYTR",
"ALYFGHKLMNIYTR",
"AMAFGHKLMNIYTR",
"AMCFGHKLMNIYTR",
"AMDFGHKLMNIYTR",
"AMEFGHKLMNIYTR",
"AMFFGHKLMNIYTR",
"AMGFGHKLMNIYTR",
"AMHFGHKLMNIYTR",
"AMIFGHKLMNIYTR",
"AMKFGHKLMNIYTR",
"AMLFGHKLMNIYTR",
"AMMFGHKLMNIYTR",
"AMNFGHKLMNIYTR",
"AMPFGHKLMNIYTR",
"AMQFGHKLMNIYTR",
"AMRFGHKLMNIYTR",
"AMSFGHKLMNIYTR",
"AMTFGHKLMNIYTR",
"AMVFGHKLMNIYTR",
"AMWFGHKLMNIYTR",
"AMYFGHKLMNIYTR",
"ANAFGHKLMNIYTR",
"ANCFGHKLMNIYTR",
"ANDFGHKLMNIYTR",
"ANFGHKLMNIYTR",
"ANFFGHKLMNIYTR",
"ANGFGHKLMNIYTR",
"ANHFGHKLMNIYTR",
"ANIFGHKLMNIYTR",

"ANKFGHKLMNIYTR",
"ANLFGHKLMNIYTR",
"ANMFGHKLMNIYTR",
"ANNFGHKLMNIYTR",
"ANPFGHKLMNIYTR",
"ANQFGHKLMNIYTR",
"ANRFGHKLMNIYTR",
"ANSFGHKLMNIYTR",
"ANTFGHKLMNIYTR",
"ANVFGHKLMNIYTR",
"ANWFGHKLMNIYTR",
"ANYFGHKLMNIYTR",
"APAFGHKLMNIYTR",
"APCFGHKLMNIYTR",
"APDFGHKLMNIYTR",
"APEFGHKLMNIYTR",
"APFFGHKLMNIYTR",
"APGFGHKLMNIYTR",
"APHFGHKLMNIYTR",
"APIFGHKLMNIYTR",
"APKFGHKLMNIYTR",
"APLFGHKLMNIYTR",
"APMFGHKLMNIYTR",
"APNFGHKLMNIYTR",
"APPFGHKLMNIYTR",
"APQFGHKLMNIYTR",
"APRFGHKLMNIYTR",
"APSGHKLMNIYTR",
"APTFGHKLMNIYTR",
"APVFGHKLMNIYTR",
"APWFGHKLMNIYTR",
"APYFGHKLMNIYTR",
"AQAFGHKLMNIYTR",
"AQCFGHKLMNIYTR",
"AQDFGHKLMNIYTR",
"AQEFGHKLMNIYTR",
"AQFFGHKLMNIYTR",
"AQGFGHKLMNIYTR",
"AQHFGHKLMNIYTR",
"AQIFGHKLMNIYTR",
"AQKFGHKLMNIYTR",
"AQLFGHKLMNIYTR",
"AQMFGHKLMNIYTR",
"AQNFGHKLMNIYTR",

"AQPFGHKLMNIYTR",
"AQQFGHKLMNIYTR",
"AQRFGHKLMNIYTR",
"AQSFGHKLMNIYTR",
"AQTFGHKLMNIYTR",
"AQVFGHKLMNIYTR",
"AQWFGHKLMNIYTR",
"AQYFGHKLMNIYTR",
"ARAFGHKLMNIYTR",
"ARCFGHKLMNIYTR",
"ARDFGHKLMNIYTR",
"AREFGHKLMNIYTR",
"ARFFGHKLMNIYTR",
"ARGFGHKLMNIYTR",
"ARHFGHKLMNIYTR",
"ARIFGHKLMNIYTR",
"ARKFGHKLMNIYTR",
"ARLFGHKLMNIYTR",
"ARMFGHKLMNIYTR",
"ARNFGHKLMNIYTR",
"ARPFGHKLMNIYTR",
"ARQFGHKLMNIYTR",
"ARRFGHKLMNIYTR",
"ARSFGHKLMNIYTR",
"ARTFGHKLMNIYTR",
"ARVFGHKLMNIYTR",
"ARWFGHKLMNIYTR",
"ARYFGHKLMNIYTR",
"ASAFGHKLMNIYTR",
"ASCFGHKLMNIYTR",
"ASDFGHKLMNIYTR",
"ASEFGHKLMNIYTR",
"ASFFGHKLMNIYTR",
"ASGFGHKLMNIYTR",
"ASHFGHKLMNIYTR",
"ASIFGHKLMNIYTR",
"ASKFGHKLMNIYTR",
"ASLFGHKLMNIYTR",
"ASMFGHKLMNIYTR",
"ASNFGHKLMNIYTR",
"ASPFGHKLMNIYTR",
"ASQFGHKLMNIYTR",
"ASRFGHKLMNIYTR",
"ASSFGHKLMNIYTR",

"ASTFGHKLMNIYTR",
"ASVFGHKLMNIYTR",
"ASWFGHKLMNIYTR",
"ASYFGHKLMNIYTR",
"ATAFGHKLMNIYTR",
"ATCFGHKLMNIYTR",
"ATDFGHKLMNIYTR",
"ATEFGHKLMNIYTR",
"ATFFGHKLMNIYTR",
"ATGFGHKLMNIYTR",
"ATHFGHKLMNIYTR",
"ATIFGHKLMNIYTR",
"ATKFGHKLMNIYTR",
"ATLFGHKLMNIYTR",
"ATMFGHKLMNIYTR",
"ATNFGHKLMNIYTR",
"ATPFGHKLMNIYTR",
"ATQFGHKLMNIYTR",
"ATRFGHKLMNIYTR",
"ATSFGHKLMNIYTR",
"ATTFGHKLMNIYTR",
"ATVFGHKLMNIYTR",
"ATWFGHKLMNIYTR",
"ATYFGHKLMNIYTR",
"AVAFGHKLMNIYTR",
"AVCFGHKLMNIYTR",
"AVDFGHKLMNIYTR",
"AVEFGHKLMNIYTR",
"AVFFGHKLMNIYTR",
"AVGFGHKLMNIYTR",
"AVHFGHKLMNIYTR",
"AVIFGHKLMNIYTR",
"AVKFGHKLMNIYTR",
"AVLFGHKLMNIYTR",
"AVMFGHKLMNIYTR",
"AVNFGHKLMNIYTR",
"AVPFGHKLMNIYTR",
"AVQFGHKLMNIYTR",
"AVRFGHKLMNIYTR",
"AVSFGHKLMNIYTR",
"AVTFGHKLMNIYTR",
"AVVFGHKLMNIYTR",
"AVWFGHKLMNIYTR",
"AVYFGHKLMNIYTR",

"AWAFGHKLMNIYTR",
"AWCFGHKLMNIYTR",
"AWDFGHKLMNIYTR",
"AWEFGHKLMNIYTR",
"AWFFGHKLMNIYTR",
"AWGFGHKLMNIYTR",
"AWHFGHKLMNIYTR",
"AWIFGHKLMNIYTR",
"AWKFGHKLMNIYTR",
"AWLFGHKLMNIYTR",
"AWMFGHKLMNIYTR",
"AWNFGHKLMNIYTR",
"AWPFGHKLMNIYTR",
"AWQFGHKLMNIYTR",
"AWRFGHKLMNIYTR",
"AWSFGHKLMNIYTR",
"AWTFGHKLMNIYTR",
"AWVFGHKLMNIYTR",
"AWWFGHKLMNIYTR",
"AWYFGHKLMNIYTR",
"AYAFGHKLMNIYTR",
"AYCFGHKLMNIYTR",
"AYDFGHKLMNIYTR",
"AYEFGHKLMNIYTR",
"AYFFGHKLMNIYTR",
"AYGFGHKLMNIYTR",
"AYHFGHKLMNIYTR",
"AYIFGHKLMNIYTR",
"AYKFGHKLMNIYTR",
"AYLFGHKLMNIYTR",
"AYMFGHKLMNIYTR",
"AYNFGHKLMNIYTR",
"AYPFGHKLMNIYTR",
"AYQFGHKLMNIYTR",
"AYRFGHKLMNIYTR",
"AYSFGHKLMNIYTR",
"AYTFGHKLMNIYTR",
"AYVFGHKLMNIYTR",
"AYWFGHKLMNIYTR",
"AYYFGHKLMNIYTR"

]

}

3-Positional Scanning Library

请求 URL: <http://127.0.0.1:8080/peptide-tools/peptide/generate>

请求参数说明:

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列, 蛋白序列由 20 种氨基酸任意随机组合组成, 20 种氨基(单字母)分别表示为: A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	是
positionA	int	替换位置 A, Position of residue to be replaced (from N-terminus) (从左往右), 1-序列长度中任意自然数	是
positionB	int	替换位置 B, Position of residue to be replaced (from N-terminus) (从左往右), 1-序列长度中任意自然数	是
positionC	int	替换位置 C, Position of residue to be replaced (from N-terminus) (从左往右), 1-序列长度中任意自然数	是

请求实例:

```
{
  "proteinSequence": "ASDFGHKLMNIYTR",
  "positionA": 1,
  "positionB": 1,
  "positionC": 1
}
```

返回参数说明:

字段名称	数据类型	描述	是否必选
code	string	返回编码: 200-成功, 400-参数校验不通过, 500-接口异常	是
desc	string	返回消息	是
result	object	返回结果, 多个字符串结果用\n分割	否

返回实例:

```
{
```

```

"code": 200,
"desc": "Success",
"result": [
    "ASDFGHKLMNIYTR",
    "CSDFGHKLMNIYTR",
    "DSDFGHKLMNIYTR",
    "ESDFGHKLMNIYTR",
    "FSDFGHKLMNIYTR",
    "GSDFGHKLMNIYTR",
    "HSDFGHKLMNIYTR",
    "ISDFGHKLMNIYTR",
    "KSDFGHKLMNIYTR",
    "LSDFGHKLMNIYTR",
    "MSDFGHKLMNIYTR",
    "NSDFGHKLMNIYTR",
    "PSDFGHKLMNIYTR",
    "QSDFGHKLMNIYTR",
    "RSDFGHKLMNIYTR",
    "SSDFGHKLMNIYTR",
    "TSDFGHKLMNIYTR",
    .....
    "QSDFGHKLMNIYTR",
    "RSDFGHKLMNIYTR",
    "SSDFGHKLMNIYTR",
    "TSDFGHKLMNIYTR",
    "VSDFGHKLMNIYTR",
    "WSDFGHKLMNIYTR",
    "YSDFGHKLMNIYTR"
]
}

```

注意:此接口返回结果包含 8000 个序列，为方便阅读返回实例中部分序列用...表示

Biorunstar

此接口包含净电荷、平均亲水性、等电点等计算

请求 URL:

<http://127.0.0.1:8080/peptide-tools/peptide/calcBiorunstar>

请求参数说明:

参数名称	数据类型	描述	是否必填
proteinSequence	string	蛋白序列，蛋白序列由 20 种氨基酸任意随机组合组成，20 种氨基（单字母）分	是

		别表示为: A, C, D, E, F, G, H, I, K, L, M, N, P, Q, R, S, T, V, W, Y	
ph	double	ph 值, 取值范围:1-14	是
nTerminusType	string	N-末端, 前端下拉框选择	是
cTerminusType	string	C-末端, 前端下拉框选择	是

请求实例:

```
{
  "peptideSequence": "PLPYTQWERASDFGKLMNA",
  "ph": 7.0,
  "nTerminusType": "DOTA",
  "cTerminusType": "Bzl"
}
```

返回参数说明:

字段名称	数据类型	描述	是否 必选
code	string	返回编码: 200-成功, 400-参数校验不通过, 500-接口异常	是
desc	string	返回消息	是
result	object	返回结果	否
-radio	double	亲水基占比	
-Molecular Weight	double	分子量	
-1-Letter Code	string	1-Letter Code	
-3-Letter Code	string	3-Letter Code	
-Number of Residues	int	序列长度, 不包含 N 端和 C 端的	
-Net Charge table	map	Ph:0-14, 序列对应净电荷的值, 在前端用趋势图表示	
-Isoelectric Point	double	等电点, 当序列无酸性、碱性、N 端不是 H, C 端不是 OH 时返回:non-determined	
-Net Charge	double	净电荷	
-Average Hydrophilicity	double	平均亲水性	
-hydrophilicity	map	序列中所有氨基酸的亲水性, 在前端用柱状图表示	

返回实例:

```
{
  "code": 200,
```

```

"desc": "Success",
"result": {
  "redio": 36.84,
  "Molecular Weight": 2701.03,
  "1-Letter Code": "DOTA-PLPYTQWERASDFGKLMNA-Bzl",
  "3-Letter Code":
    "DOTA-Pro-Leu-Pro-Tyr-Thr-Gln-Trp-Glu-Arg-Ala-Ser-Asp-Phe-Gly-Lys-Leu-Met-Asn-Ala
    -Bzl",
  "Net Charge table": {
    "0": 2.0,
    "1": 2.0,
    "2": 1.98,
    "3": 1.83,
    "4": 1.06,
    "5": 0.22,
    "6": 0.02,
    "7": 0.0,
    "8": -0.01,
    "9": -0.11,
    "10": -0.69,
    "11": -1.67,
    "12": -2.2,
    "13": -2.76,
    "14": -2.97
  },
  "Isoelectric Point": 6.66,
  "Net Charge": 0.0,
  "Average Hydrophilicity": -0.09,
  "Number of Residues": 19,
  "hydrophilicity": {
    "P": 0.0,
    "L": -1.8,
    "Y": -2.3,
    "T": -0.4,
    "Q": 0.2,
    "W": -3.4,
    "E": 3.0,
    "R": 3.0,
    "A": -0.5,
    "S": 0.3,
    "D": 3.0,
    "F": -2.5,
    "G": 0.0,
    "K": 3.0,

```

```
        "M": -1.3,  
        "N": 0.2  
    }  
}  
}
```

三、接口返回码说明

code	描述
200	成功
400	参数校验不通过
500	接口异常

四、注意事项

上述 API 接口中 127.0.0.1 为本地 IP，实际上线使用请更换为生产服务器 IP