

Antibody Technologies and Attrition Rates - an Industry Analysis 2013

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Abstracts

Product Description

The report “Antibody Technologies and Attrition Rates – an industry analysis 2013” is based on the identification of the antibody generation technologies of 504 naked antibodies in clinical or market stages. Information was retrieved from scientific and corporate publications as well as from patent and legal literature. The report provides descriptive statistics of the 504 naked antibodies and their status during the study period of January 1, 2013 to February 28, 2013. The antibodies are categorized as active during the study period or discontinued during or before the study period. Attrition rates were calculated across a number of variables.

Descriptive statistics of the 504 naked antibodies include the following variables:

Unique antibody identifiers (drug codes; generic name; brand name)

Antibody format (full length, Fab, scFv, VH/VL, nanobody, bispecific, cocktail/polyclonal)

In vitro antibody generation technologies (display technologies from CAT, Dyax, Morphosys, BioInvent, Domantis, Genentech, others)

In vivo antibody generation technologies (chimeric, primatized, nanobodies, deimmunized, human engineered, humaneered, humanized, XenoMouse, HuMab mouse, KM mouse, VelocImmune mouse, human B-cell derived)

Animal species of parental wild-type antibody (mouse, rat, rabbit, hamster,

cynomolgus monkey, camelid)

Antibody status (active/discontinued)

Year of failure

Reason for failure (efficacy, pharmacokinetics/ADME; safety; technical, business, next generation, inactivity)

Target

Immunoglobulin class and IgG isotype

Highest phase

Therapeutic area of lead indication

Companies (developer, licensor/originator)

An Antibody Data Sheet was prepared for each unique antibody containing the retrieved information and the source of information in the form of a scientific reference or a hyperlink leading to the website from which the information was obtained.

The analysis essentially evaluated the question whether there are differences in clinical attrition rates between in vitro and in vivo antibody generation technologies as well as within the different in vitro and in vivo antibody generation technologies. Attrition rate was defined as the percentage of failed antibodies of all active and inactive antibodies.

Benefits from the data and the analysis:

Understand the historical and present state of the art use of antibody technologies;

Learn the success rate of each antibody generation technology;

Understand the reasons for failure of antibodies in clinical development;

Appreciate the relative value of generic and of IP protected antibody

technologies;

Know which antibody technologies are using your competitors;

Know the preferred antibody formats, IgG isotypes, development indications, parental wild-type animal species.

Learn the influence of the target for the success rate of the selected antibody technology.

Contents

1 EXECUTIVE SUMMARY AND DISCUSSION

2 INTRODUCTION

3 METHODOLOGY

4 RESULTS

4.1 Use of antibody technologies

4.2 Attrition rates

4.3 Reasons for failure

4.4 Antibody generation technologies and targets

4.5 Antibody technologies and antibody formats

4.6 Parental animal species of in vivo generated antibodies

4.7 Immunoglobulin class and isotype vs. antibody technology

4.8 Antibody technology and therapeutic areas

4.9 Attrition rates of antibodies in therapeutic areas

4.10 Benchmark analysis: big pharma and biotech antibody technology preferences and attrition rates

5 TABLES

Table 1 Overall attrition rate of in vitro generated antibodies

Table 2 Overall attrition rate of in vivo generated antibodies

Table 3 Highest phase of active antibodies generated by in vitro technologies

Table 4 Highest phase of active antibodies generated by in vivo technologies

Table 5 Year of antibody failure for in vitro generated antibodies

Table 6 Year of antibody failure for in vivo generated antibodies

Table 7 Attrition rate of in vitro generated antibodies in the period 2006-2013

Table 8 Attrition rate of in vivo generated antibodies in the period 2006-2013

Table 9 Highest phase of failed antibodies generated by in vitro technologies

Table 10 Highest phase of failed antibodies generated by in vivo technologies

Tables 11 Reasons for failure of antibodies generated by in vitro technologies

Tables 12 Reasons for failure of antibodies generated by in vivo technologies

Table 13 Reasons for failure of humanized antibodies per phase

Tables 14 Targets of failed in vitro generated antibodies per technology

Tables 15 Targets vs. in vitro and in vivo antibody generation technologies

- Tables 16 Transgenic mouse antibodies and targets
- Table 17 Antibody technologies and antibody formats
- Table 18 Parental animal species of in vivo generated antibodies
- Table 19 Immunoglobulin class and isotype vs antibody technology
- Table 20 In vitro antibody technology and therapeutic areas
- Table 21 In vivo antibody technology and therapeutic areas
- Table 22 Failed antibodies from in vitro technologies vs therapeutic areas
- Table 23 Failed antibodies from in vivo technologies vs therapeutic areas
- Table 24 Roche (Genentech/Chugai) use of antibody technologies vs attrition rates
- Table 25 AstraZeneca (MedImmune/CAT) use of antibody technologies vs attrition rates
- Table 26 Amgen use of antibody technologies vs attrition rates
- Table 27 Lilly (ImClone) use of antibody technologies vs attrition rates
- Table 28 Pfizer (Wyeth) use of antibody technologies vs attrition rates
- Table 29 Novartis use of antibody technologies vs attrition rates
- Table 30 GlaxoSmithKline (HGS) use of antibody technologies vs attrition rates
- Table 31 Sanofi (Genzyme) use of antibody technologies vs attrition rates
- Table 32 Bristol-Myers Squibb (Medarex) use of antibody technologies vs attrition rates
- Table 33 Biogen Idec use of antibody technologies vs attrition rates
- Table 34 Janssen (Centocor/J&J) use of antibody technologies vs attrition rates
- Table 35 AbbVie (Abbott) use of antibody technologies vs attrition rates
- Table 36 Kyowa Hakko Kirin Pharma use of antibody technologies vs attrition rates
- Table 37 Merck (Schering-Plough) use of antibody technologies vs attrition rates
- Table 38 UCB (Celltech) use of antibody technologies vs attrition rates
- Table 39 Eisai (Morphotek) use of antibody technologies vs attrition rates
- Table 40 Novo Nordisk use of antibody technologies vs attrition rates
- Table 41 Ranking list of Big Pharma & Biotech companies and overall antibody attrition rates
- Table 42 Ranking list of Big Pharma & Biotech companies and in vitro antibody attrition rates
- Table 43 Ranking list of Big Pharma & Biotech companies and in vivo antibody attrition rates
- Table 44 Ranking list of Big Pharma & Biotech companies and in vivo antibody preference rate
- Table 45 Big Pharma & Biotech companies and preferred in vivo antibody technologies: humanization vs. transgenic mice

6 ADDENDUM: ANTIBODY DATA SHEETS

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